WEEDS TREES and TURF

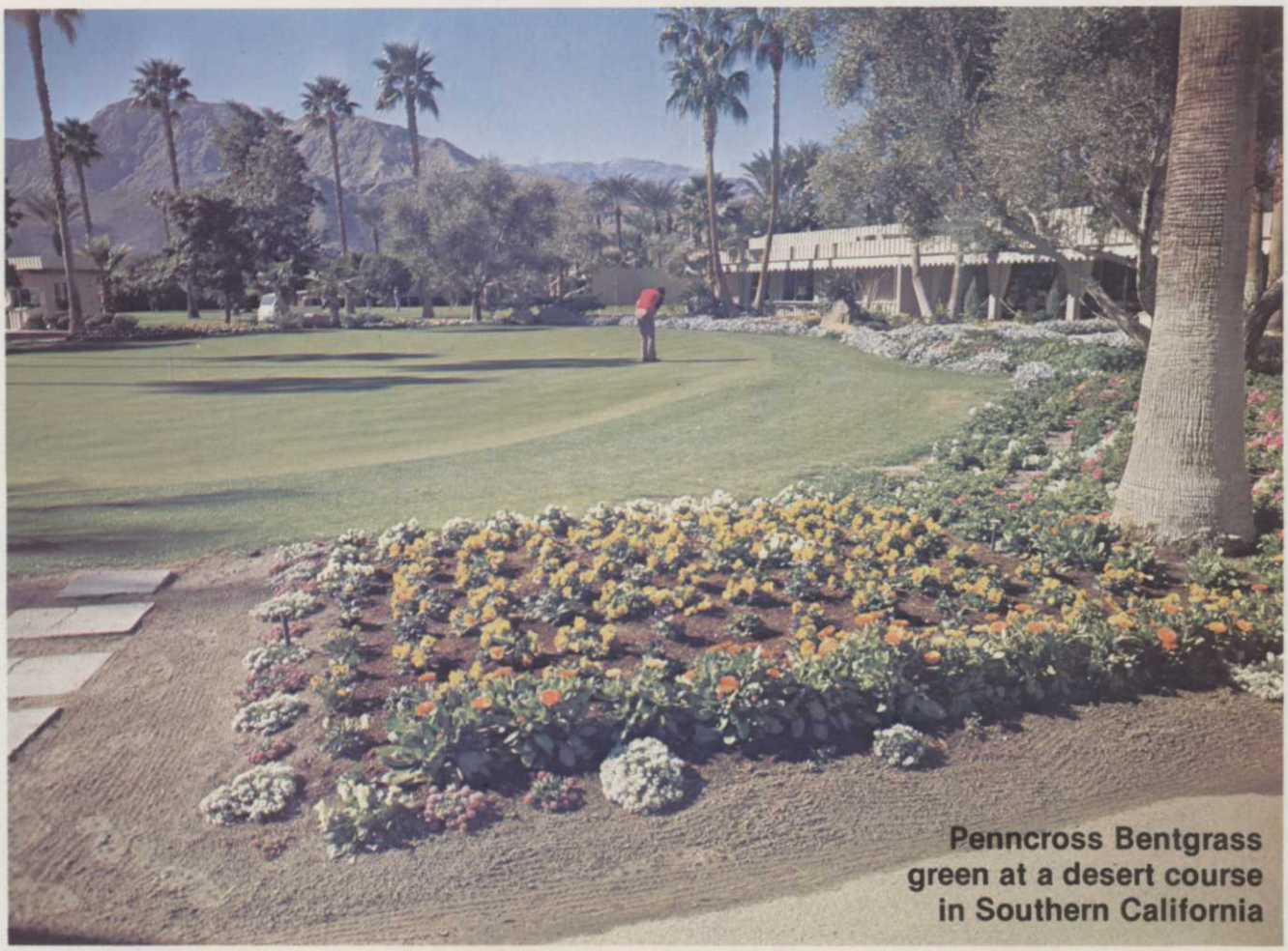
DECEMBER 1974

'Texas Tree Shovel'— Over-the-road Tree Moving

A WTT Exclusive— 13 Associations Look At Their Future In The Green Industry

TRAINING EMPLOYEES

When the HEAT'S on



Penncross Bentgrass green at a desert course in Southern California

PENNCROSS can take it

CREEPING BENTGRASS

THE PROOF IS IN THE PUTTING

- Today's most popular, widely adapted variety
- More genetically uniform and poa-free seed
- Germinates fast, establishes quicker, thicker
- Superbly consistent, less grain for true putts
- Greens up earlier, hold summer color better
- Stays alive longer in fall—year 'round in South
- Most winterhardy, disease-resistant bent available.

PENNCROSS BENT GRASS

WORLD-WIDE DISTRIBUTOR

TEE-2-GREEN CORP.

1212 West Eighth Street
Kansas City, Missouri 64101
(816) 842-7825

"Penncross Greens putt true & their even texture gives me confidence in putting."

Patrick C. Fitzsimons

Pat Fitzsimons tied the world record score of 58 on a 6,000 yard course and is now a touring professional.

For More Details Circle (119) on Reply Card

A W.I.N.ner fertilizes less often!

W.I.N.ners use fewer fertilizer applications . . . at no sacrifice in vigor or growth. They use Blue Chip® fertilizers containing W.I.N. (water insoluble nitrogen) from Nitroform® organic nitrogen.

W.I.N. from Blue Chip feeds turf for months because the nitrogen has different rates of release. Think about time-release cold capsules. It's the same basic release idea.

How does a Blue Chip fertilizer treat your turf? Beautifully! Blue Chip helps you maintain green, vigorous turf. It feeds slowly and steadily to avoid the sudden growth that can induce stress. Even inexperienced labor can apply it without danger of burning. Once in the soil, it doesn't leach away.

It's tricky to maintain fine turf, but it's a lot easier with Blue Chip on your side. You apply it less often than most nitrogen sources, so you're way ahead in savings on labor, equipment use, and time.

Why not be a W.I.N.ner? Feed turf with a Blue Chip fertilizer

containing water insoluble nitrogen from Nitroform organic nitrogen.

HERCULES
INCORPORATED

TURF & HORTICULTURAL PRODUCTS
SYNTHETICS DEPARTMENT
WILMINGTON, DEL. 19899

For More Details Circle (118) on Reply Card

WEEDS TREES and TURF®

December 1974, Vol. 13, No. 12

THE COVER—These two diesel rigs belong to Instant Shade Trees, Inc., a Texas corporation owned by Albert H. Korenek which provides large tree moving service across the continental United States. In addition to his trucks and ten hydraulic tree diggers, Korenek also cultivates 75 acres of oaks. See story on page 10.

INSTANT SHADE TREES . . . TEXAS STYLE—Geneology of tree spades is traced back to Al Korenek's attic where he invented the granddaddy of all mechanical tree diggers, the Texas Tree Shovel. Korenek tells his story from conception of the idea to completion of the popular diggers **10**

THE ARBORIST'S INSURANCE MARKET—National Arborist Association-approved Fred S. James and Company's Stanley Loar takes a look at the insurance options open to the arborist. Loar outlines alternatives to high cost, low dependability insurance **14**

MOTIVATING THE TURNED-OFF EMPLOYEE—Part 1: The Needs of Man—Few managers deliberately demotivate employees. But there are also very few who understand just what makes an employee tick, what his goals are within the work environment, what makes him dedicated and hard working. In this first of a series, John L. McKeever discusses the employee's goals, manager's role and employee's expectations from management **18**

MEET THE ASSOCIATIONS—Backbone of the Green Industry—Thirteen green industry organizations review their 1974 accomplishments and look ahead to their goals for 1975 ..... **31**

WTT 1974 ARTICLE AND AUTHOR INDEX **37**

Editorial	6	People on the Move	30
Government News/Business	8	New Products	47
Industry News and Newsmakers	23	Letters to the Editor	48
Commercial Sod Industry	24	Classifieds/Advertisers	49
Meeting Dates	26	Trimmings	50

Copyright© 1974 by The Harvest Publishing Company

Member, American Business Press, Business Publications Audit ABP BPA

Single Copy Price: $1.00 for current and all back issues. Foreign $1.50. Subscription Rates: WEEDS TREES AND TURF is mailed free, within the U.S. and possessions and Canada, to qualified persons engaged in the vegetation care industry and related fields in controlled circulation categories. Non-qualified subscriptions in the U.S. and Canada are $10.00 per year; other countries, $12.00 per year. Application pending for controlled circulation postage paid at Fostoria, Ohio 44830.

Editorial Director
Donald D. Miller

Assistant Editor
Roger E. Yount

Assistant Editor
Jean A. Rohrer

President
Hugh Chronister

Publisher
Arthur V. Edwards

Director of Circulation
D.D. Langley

PRODUCTION SERVICES

Advertising Production
Darrell Gilbert

9800 Detroit Avenue
Cleveland, Ohio 44102
216+651-5500

ADVERTISING SALES OFFICES

HEADQUARTERS
Clevèland, Ohio 44102
9800 Detroit Avenue
216-651-5500
Jean Neuendorf
Executive Assistant
Richard H.Swank

New York, N.Y. 10017
757 Third Avenue
212-421-1350
Russell B. Bandy

WEEDS TREES and TURF is published monthly by The Harvest Publishing Company, a subsidiary of Harcourt Brace Jovanovich, Inc. Executive, editorial offices, 9800 Detroit Ave., Cleveland, Ohio 44102. Phone 216-651-5500.

"It's fall. How come the turf isn't turning like the trees?"

"His turf never changes color."

As a professional golf course superintendent, green is the only color for your turf, no matter what the season.

And green is what you can get if you follow the Du Pont TERSAN® 1-2-3 Disease Control Program. It's effective, economical and complete—controls all major turf diseases on all turf grasses all season long. The third step of this program—the one to follow right now—is the application of Du Pont TERSAN SP on tees, fairways and greens. TERSAN SP zeros in on Gray Snow Mold and Pythium—the diseases that can be a major problem most any time of the year but particularlv during autumn and the early winter months. (depending on your area) TERSAN SP, applied as directed, stops these turf diseases before they have a chance to damage your playing surface. (Applications of Du Pont TERSAN 1991 turf fungicide should be used in the late fall and early spring in areas where Pink Snow Mold is a problem.)

The TERSAN 1-2-3 Disease Control Program is a management tool you can depend on to do an outstanding job while keeping time, labor and costs at a minimum. So when members or officials of your club talk turf, they'll be saying the kind of words you want to hear. For details on the TERSAN Program and a supply of TERSAN fungicides, see your golf course supplier.

With any chemical, follow labeling instructions and warnings carefully.

DUPONT
REG. U.S. PAT. OFF.

TERSAN 1·2·3 DISEASE CONTROL PROGRAM

For More Details Circle (116) on Reply Card

editorial

Much of the food crisis data we are being subjected to can be classed as nonsense. But we are aware that people who are starving need help. Our problem is how help for them affects our industry.

"Golf courses vs. food" is a ridiculous statement, but a most powerful slogan — and one we now have to deal with.

The American people may not prove so gullible this time as they were during the "oil shortage" and the general problems which were created as a direct result. Also, we now have the sugar crisis. All this may just cause Americans to analyze and consider the facts a little more carefully.

Our task — as organized groups within the green industry — is to get facts to the American public. We need action committees — using the best minds in our industry — to assemble data which will quickly show the need for maintaining the green in our field.

Basically, we need to show the value of trees and turfgrasses as bulwarks against pollution. We need to review for people the life support data associated with the "Keep America Beautiful" type of vegetation.

Further, we need to review the history of the fertilizer industry — how companies were forced a few years ago to shut down fertilizer plants because of overproduction; and the fact that in a short time the fertilizer market, if the need exists, can again be inundated with product.

Also, we need to point out that at one time not too many years ago, the food (mostly wheat) we were sending India to solve their starvation problem was in excess of their dock facilities to handle it. Further, we developed educational programs to help India (and other underdeveloped countries) with university personnel and training curricula to aid in increasing food production. The Indians kicked us out.

Nevertheless, starving people need food. And some way, we in this country will help get it to them. If we handle the situation intelligently, we can have both "golf courses and food."

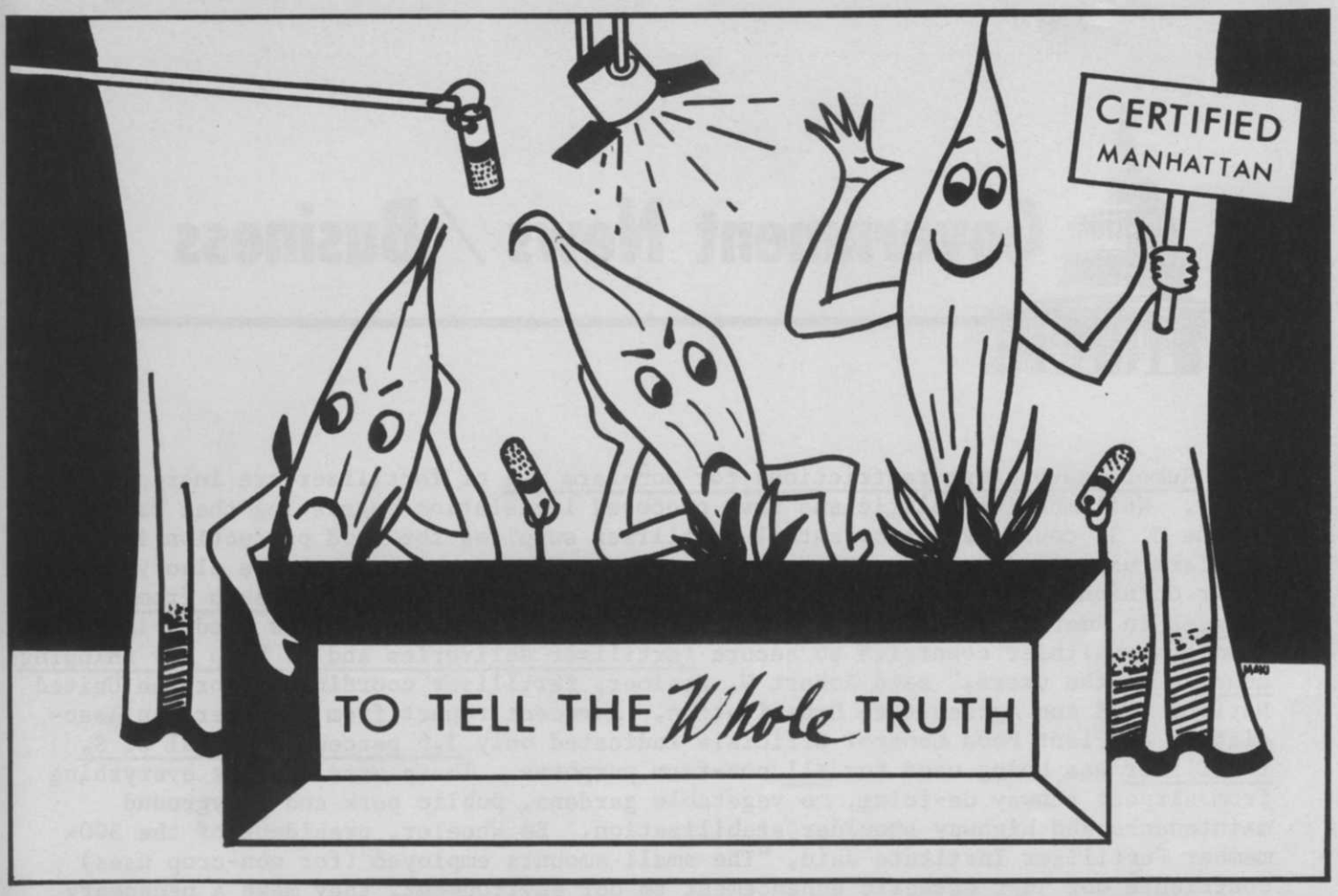
We, as publishers, are interested. We will welcome your ideas on meeting this latest crisis. A.E.

Announcing the new Asplundh "Whisper Chipper"

Looks the same—sounds so different!

This new unit has all the dependable features of our famous chipper line. However, there is a remarkable difference — a great reduction in noise. Modification kits will be available for many existing models. **Asplundh Chipper Company, a division of Asplundh Tree Expert Co., 50 E. Hamilton Street, Chalfont, Pa. 18914**

ASPLUNDH



WILL THE REAL MANHATTAN RYEGRASS, PLEASE STAND UP!

Manhattan perennial ryegrass is a fine textured perennial ryegrass developed by Dr. Reed Funk, Rutgers University. This new, improved, fine textured grass is genetically pure and great care is taken by Manhattan Association growers who plant only foundation seed stock. The seed is produced by members of the Manhattan Ryegrass Growers Association who agree to strict rules of growing, to protect the crop from cross-pollination and other contaminants.

The seed produced by these growers is closely watched and both field certification and seed certification are required before the seed is released to you, the customer.

Any seed bearing the name "Manhattan" but which does not carry certification tags may not be truly Manhattan. The variance could be drastically untrue of variety.

For your protection — buy only Certified Manhattan; why take a chance on imitations?

THE Manhattan®

"TURF TYPE"
PERENNIAL RYEGRASS

Certified Manhattan is grown by the
MANHATTAN RYEGRASS GROWERS ASSOCIATION
P.O. Box 145 • Hubbard, Oregon 97032

Exclusive Marketing Agents
WHITNEY-DICKINSON SEEDS, Inc.
52 Leslie Street • Buffalo, New York • 14240

For More Details Circle (145) on Reply Card

Government News / Business

Rumors advocating restrictions for non-farm use of fertilizer are increasing daily. Well-meaning politicians have proposed legislation suggesting that farmers in the U. S. could gain substantial fertilizer supplies for food production if non-farm use was diverted. Fortunately, some common-sense experts are also voicing their opinions. "It is unrealistic to talk about fertilizer being taken from golf courses in America to supply farmers in developing nations. What is needed is funds from the wealthier countries to secure fertilizer deliveries and to help pay shipping charges to the users," said Robert W. Steiner, fertilizer coordinator for the United Nations Food and Agriculture Organization. A recent report from the American Association of Plant Food Control Officials indicated only 3.5 percent of total U. S. fertilizer was being used for all non-farm purposes. These uses include everything from airport runway de-icing, to vegetable gardens, public park and playground maintenance and highway shoulder stabilization. Ed Wheeler, president of the 300-member Fertilizer Institute said, "The small amounts employed (for non-crop uses) contribute not just esthetic enhancement to our environment, they make a necessary functional addition to it, as well."

Senate has rejected an appropriations bill amendment, by a 60-to-29 margin, that would have exempted firms with 25 or fewer employees from OSHA coverage. The house has previously passed a similar version of the amendment. The bill now goes to a House-Senate conference where a final decision must be worked out.

Rhodia, Inc., has changed the name of its Chipman Division to Agricultural Division. Rhodia acquired the Chipman Chemical Company in 1964.

Sandoz Inc. Crop Protection, Homestead, Florida, has acquired Komeen Aquatic Herbicide and K-Lox Algaecide from Kocide Chemicals Corporation, Houston, Texas. Komeen is a copper compound for control of Hydrilla. K-Lox is for use in lakes and ponds.

In other industry acquisitions, Toro Company recently signed an agreement in principle to acquire the stock of Irrigation and Power Equipment, Inc., Greeley, Colo., a manufacturer of center pivot irrigation systems marketed under the Raincat trade name. Purchase of the company would involve an exchange of stock and be treated as a pooling of interests.

Beginning January 1, 1975, employers will be required to record occupational injuries and illnesses on a revised form that distinguishes two types of lost-work days--"days away from work" and "days of restricted work activity." "Days away from work" are defined as any days on which an employee would have worked but could not because of occupational injury or illness. "Days of restricted work activity" are any days during which an employee was assigned to another job on a temporary basis, or worked at his job less than full time, or worked at his regular job but could not perform all duties connected with it because of occupational injury or illness.

A burst of brilliance...
Fylking for the World's Fair!

Fylking Kentucky bluegrass is a superior, elite bluegrass that burst like a star on the scene in the sixties!

Since then Fylking has established records making it the perfect choice for the official grass at the environmental World's Fair, Expo '74.

Fylking has proven to have superior resistance to disease and drought; withstands traffic. Its thickly woven rhizome root system develops dense sod so quickly Fylking can be lifted in 90 days. Fylking can be mowed at 3/4 inch (even 1/2 inch) and thrive. It absorbs carbon dioxide pollutants, gives off oxygen, cools air by releasing water vapor.

A superior mixer, Fylking greens up earlier in spring, stays greener in summer heat, remains green longer into fall.

Choose Fylking and your customers are getting a grass good enough for a World's Fair!

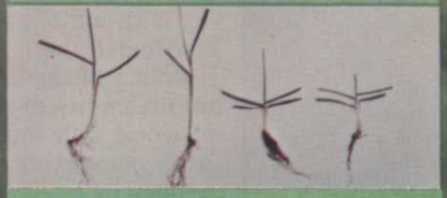
0217

FYLKING KENTUCKY BLUEGRASS

U. S. Plant Patent 2887

Another fine product of Jacklin Seed Company

Fylking's rhizome root system develops so thickly, under ideal conditions sod can be lifted in 90 DAYS.



Low growth, short leaf sheaths and abundant tillering of Fylking (right) compared with another elite bluegrass plant.

Cross section displays thick, luxuriant turf, fine leaf texture and brilliant green color of Fylking.

For More Details Circle (121) on Reply Card

INSTANT SHADE TREES... TEXAS STYLE...

By ALBERT H. KORENEK

ALTHOUGH mechanized moving of trees grows more common and popular each year, few realize the original development of Vermeer-type hydraulic diggers grew out of a classroom assignment and years of home shop experimentation.

After returning from military service in 1953, I went back to college and began night school graduate studies at the University of Houston. One class assignment was to research some type of small business and to make recommendations for its improvement or expansion. Since I grew up on a farm, a report on a business relating to some type of farming seemed most interesting. My father had sold native oak trees from our farm and I had grown trees from acorns, so I chose to do a study of one of the largest tree service companies in Houston, Tex. This company hand dug and transplanted sizeable quantities of large trees all over southern Texas. One thing difficult to understand was the company looking for trees and hauling them from as far away as Mississippi and Louisiana. I immediately saw the possibility of growing trees locally which would be close to market and save "hunting for trees" several hundred miles away and expensive hauling. The ten-page report yielded a good grade and, more importantly, it sounded so convincing that I soon began planting trees in my spare time in anticipation of some day being in the tree business.

With initial plantings made and trees growing, it wasn't long before I confronted the hardest part of business in large trees: the digging and handling of the large ball of earth. In 1962, I began building a model of my dream tree digger in our old farmhouse attic. This first model was built of plywood with four flat blades forming an inverted pyramid-shaped ball. After completing the model, I tried to hire Bill Peltier, a Danbury, Tex. welder and fabricator, to build a machine from the model. He was too kind to laugh at me, and refused to build the machine saying I'd only be wasting money because the idea wouldn't work even if built.

This idea laid in limbo for two years and then while recuperating from surgery, I had lots of time to mentally redesign and rebuild my "Dream Machine." With a new round blade design and a new model, I went back to Peltier and showed him how well the little model worked. He still wasn't completely convinced that the "gizmo," as he called it, would work. However, after much assurance that I would pay him for his efforts even if the machine didn't work, he agreed to build the machine in his spare time if I'd be there to help.

(continued on page 29)

Ugly, but Economical!

Model 84

If appearance is your prime consideration, better think about another mower.

If economy and quality is what you want— you want a National Mower!

In today's economy, one of the most difficult engineering tasks is to produce a completely functional and easily maintainable machine with a minimum number of components. *We've been doing just that since 1919.*

In addition, we skimp on styling in order to lower initial price and to build mowers that give you years of extra service.

Rather than adding fancy shrouds, shiny hubcaps and frills, we concentrate on providing mowers with maneuverability and superb performance on banks and hillsides. For better quality, we use Timken bearings; automotive-type transmissions and heavy-duty, tubular steel frames. Reels adjust down to fixed bed bars providing for more rigid and longer lasting mowing units. Bed knives have turned up lips for extra wear... *a feature we introduced as early as 1925.* For professional results, National's three power-driven, free-floating reels follow ground contour and cut without skip or scalping.

Chrome accent strips don't add to serviceability, so we don't use them. National's no-nonsense design makes normal service faster than any mower on today's market.

Check out the economies of these ugly beauties... we've been adding nothing but quality since 1919.

Model 68

WRITE for detailed literature on all National Mowers

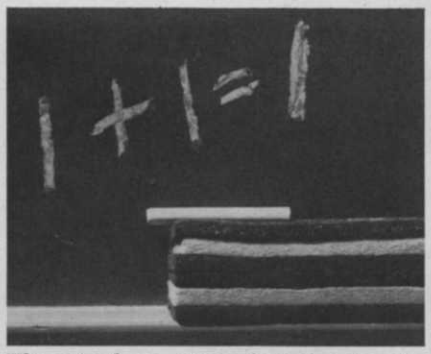
NATIONAL MOWER

NATIONAL Mower Company

660 Raymond Avenue • St. Paul, Minnesota 55114
Phone: 612/646-4079

Northrup King introduces a new Kentucky Bluegrass concept:

Aquila/Parade. working as one perfect blend



The Northrup King formula for the nearly perfect Kentucky Bluegrass: 1 + 1 = 1. *That's two superbly compatible bluegrasses—Aquila and Parade—working as one to create an outstanding blend component.*

For a long time, turf researchers have been looking for the "perfect" Kentucky Bluegrass. They haven't found it. They've come up with some excellent varieties but not that one perfect cultivar.

Northrup King has been seeking perfection, too. And, taking a different approach, we think we've come very close to it.

Perfection, a team concept.

Since all known grasses have some sort of weakness, why not select a *team* of two grasses—with each member of the team possessing compensating strengths—and blend them in a way that's practical for use by turf professionals? This is precisely the approach Northrup King has taken.

For ten years, our researchers have sought two superior and superbly compatible Kentucky Bluegrasses to form a high-performance, low-maintenance "blend-within-a-blend". In Aquila and Parade, we've found the pair we've been after. Let's look at these two grasses, first as individuals and then as the Northrup King team of Aquila/Parade.

Aquila for persistence.

Bluegrass turf that's been established for three to five years tends to require significantly more maintenance in order to keep it dense and healthy. Aquila Kentucky Bluegrass provides a striking exception to this fact of turf life.

Once established, Aquila holds its density and color and maintains a healthy weed-resistant stand for longer than five years, even under low or moderate nitrogen fertilization. It also requires less moisture to maintain its color and shows tolerance to moderate drought conditions. It has a medium leaf width and attractive dark green color for textural and esthetic compatibility with a wide range of turfgrasses. Aquila is, on its own merits, a remarkable Kentucky Bluegrass. And we've teamed it with another:

Parade for durability.

The particular strength of Parade Kentucky Bluegrass is that it develops a tough sod fast. It withstands traffic better than many bluegrasses and can recover quickly from injury, making Parade excellent for athletic fields, golf courses, fairways and other high-traffic areas. With its pleasant dark green color and moderately broad leaf width, it's compatible with many turfgrasses. In combination with Aquila, it forms a nearly perfect blend component.

Aquila/Parade: low maintenance, high performance.

Together, Aquila and Parade give you a bluegrass component with more advantages than any single cultivar we've ever seen or heard about.

The Aquila/Parade team requires moderate amounts of fertilization, water and general care—factors that should help your maintenance budget considerably. Yet, in concert with other grasses that meet your requirements, Aquila/Parade will provide a uniformly attractive turf that establishes early and lasts straight through into fall. This blend component will also stand up well under traffic and give you good disease protection.

Aquila/Parade is ready. Now how do you use it?

Northrup King is committed to the blend concept, as are many turf experts today. Our experience convinces us that a good com-

Two bluegrasses to form a nearly component.

bination of grasses will give the best performance. So we look upon Aquila/Parade as a component to be blended with rye, fescues, other bluegrasses and/or whatever your particular conditions warrant. And, we'll gladly help you formulate the proper blend.

If you'll fill out the form below, we'll give you our professional recommendation as to the best blend, using Aquila/Parade as a component. We hope you'll take us up on this offer, because we think the Aquila/Parade team is the most important Kentucky Bluegrass concept to date—as close to perfection as anybody's been able to get.

AQUILAPARADE
KENTUCKY BLUEGRASSES

Northrup King will recommend a blend, using Aquila/Parade, customized to your specific needs.

Just fill out this form and send it to Aquila/Parade, Northrup King & Co., 1500 Jackson St. N.E., Minneapolis, MN 55413.

Name:_____ Title:_____

Club or Company:_____ Phone No.:_____

Address:_____ City:_____ State:_____ Zip:_____

For: ☐ New turf ☐ Interseeding established turf ☐ Renovating old turf

Use: ☐ Prestige turf ☐ Utility turf ☐ Athletic or heavily used turf ☐ Background turf

☐ Other_____

Area to be seeded:_____ Approximate planting date:_____

Soil type: ☐ Sandy ☐ Loamy ☐ Clay ☐ Peat Soil condition: ☐ Droughty ☐ OK ☐ Wet

Fertility Level:_____ ☐ pH ☐ Acid ☐ Neutral ☐ Alkaline

Topography: ☐ Steep ☐ Rolling ☐ Level Light: ☐ Sunny ☐ Partial shade ☐ Heavy shade

Disease and insect problems encountered:_____

_____

Intended management: ☐ Intensive ☐ Moderate ☐ Low

☐ Irrigated ☐ Non-irrigated

Mowing height:_____ Frequency:_____

Fertilizer program:_____

NK NORTHRUP KING®

For More Details Circle (117) on Reply Card

The Arborist's Insurance Market

By STANLEY LOAR
Mass Marketing Coordinator
Fred S. James and Company

THE ARBORIST as a businessman is faced with the task of protecting his firm's assets and in providing longevity to his firm's profitability. Often forgotten is the many U. S. firms in any industry which go bankrupt as a direct result of some loss against which there was insurance coverage available. How many times have lawsuits, fires, embezzlement or some other loss forced companies into receivership or caused them poor results on their profit and loss statement? Often precautions could have been taken against this economic loss, but due to oversight or ignorance, the precautions were not taken.

Known vs Unknown

Insurance costs are a tax deductible expense for running a business. This expense, or insurance premium for a given period, is fixed and known. On the other hand, property losses or court settlements which are also tax deductions, are the losses over which a businessman or owner has no control as far as frequency, severity or timing at which these losses may occur. One really trades a known cost, i. e., the insurance premium, for some unknown costs, i.e., uninsured losses. The prudent businessman should be attempting to stabilize his business earnings to ensure his firm's future profitability. Therefore, to risk a known cost for some unknown, possibly catastrophic cost, makes the latter seem like gambling. This is not the way to run a business.

Proper Coverage

One may ask himself — what exposure do I have? What kind of losses should I insure against and what should I pay? Of course, the obvious and often neglected risk of loss to any business is present whenever automobiles are involved. Catastrophic losses, which we all read about in the press, where court costs and settlements reach seven-digit figures, make one wonder if he shouldn't go back to the horse and buggy. This type of loss is not all that uncommon. It is my impression most people do go through the motions of buying auto insurance, but unfortunately, the limits are not adequate. Anyone who is still carrying low bodily injury and property damage limits is taking a chance. The costs of umbrella for $1,000,000 would be well worth the money, if only to let one sleep better at night. The umbrella policy offers coverage above the normal basic policy and pays the limit of the umbrella policy in excess of the normal basic policy. For example, if one has an auto policy with limits of $100,000 per person and $300,000 per accident for bodily injury and $100,000 for property damage, then a $1,000,000 umbrella will pay up to $1,300,000 per accident for bodily injury or $1,-100,000 for property damage.

In the same area, another important and costly insurance coverage is General Liability. This offers protection against losses which may be brought against a business because of its actions other than those relating to automobiles. Often, just like auto, it is written for very low limits, which expose the business firm to tremendous losses. Also, as in the case of the auto mentioned above, an umbrella can be put over the

(continued on page 25)

Today, more than ever, Ditch Witch makes $ense.

The New Ditch Witch Modularmatic Loader

Ditch Witch has added a thrifty new "job-expander" module to the line of Modularmatic equipment.

Just add the hydraulic loader module and you're ready to clean up the job site and load a variety of materials. Outfit a R40 or R65 Modularmatic vehicle with your choice of trenching modules on the rear and the loader on the front. Or attach the Ditch Witch Model 140 utility backhoe module on the rear and the loader on the front for a Ditch Witch backhoe-loader combination.

Controls for the half-yard bucket are located for operator convenience and effectiveness.

Ditch Witch's Modularmatic concept gives you more for your equipment dollar because it enables one machine to do more jobs. In addition to the loader, Modularmatic modules are available for trenching, restoration, vibratory plowing, backhoe work and related underground construction jobs.

The new Ditch Witch Modularmatic loader. Just another reason why . . .

TODAY, MORE THAN EVER,
OUR MODULARMATICS MAKE $ENSE!

Ditch Witch . . . equipment from 7 - to 195-HP.

DITCH WITCH®

CHARLES MACHINE WORKS, INC.
P.O. Box 66
Perry, Oklahoma 73077

For More Details Circle (107) on Reply Card

How Lexington, Mass., solved its caterpillar problem with no adverse side effects.

Lexington is densely populated. So Paul Mazerall, park superintendent and tree warden, had a big job on his hands.

To stop the infestation of tent caterpillars, he had to spray around schools, parks, churches and other public places. His choice of insecticide became critical.

Paul found a product that met all his requirements. A product that wouldn't endanger local wildlife or pets or people. And one which city work crews could handle easily. It was DIPEL®.

One shot did the job.

That's all it took to get rid of the tent caterpillar problem in Lexington.

Selective control made DIPEL the answer to Lexington's problem. It worked so well, in fact, that Paul plans to expand its use.

Kills gypsy moth and others.

Including cankerworm (inchworm). Spanworm. Bagworm. Fall webworm. California oakworm (California only).

But performance is just one of the reasons cities like Lexington are switching to DIPEL.

DIPEL can be mixed and applied without protective clothing. And it mixes easily with foliar nutrients. So you can do more than one job during each pass. As a matter of fact, some cities are even spraying DIPEL from aircraft.

Yes, tree wardens like Paul Mazerall have the right idea about caterpillar control. When you have a problem, spray DIPEL.

DIPEL®

AGRICULTURAL AND VETERINARY PRODUCTS DIVISION
ABBOTT LABORATORIES, NORTH CHICAGO, ILL. 60064

GENTLEMEN: We are interested in spraying DIPEL®

☐ Please phone me promptly. ☐ Have your representative visit. ☐ Mail literature.

Name _____ Acres _____

Title _____ Pest(s) _____

Address _____ _____

City, Zip _____ By ground rig ☐

Phone No. _____ By air ☐

Company, Twnsp., District, Etc. _____

SEND TO: ABBOTT LABORATORIES, 900 West Route 70, Suite 6, Marlton, New Jersey 08053

MOTIVATING the TURNED-OFF EMPLOYEE

PART 1 The Needs of Man

Editor's Note: This is the first of a series of employee management articles designed to better employee-employer relations. The subject sequence has been separated into definition of needs, problems and goals and application techniques. The series will appear in concurrent monthly issues.

IN ANY ORGANIZATION — public or private — there are at least two sets of goals to be achieved: (1) those of the organization and (2) the personal goals of people in the organization. It is imperative that each individual — owners, managers and non-managerial personnel — achieve their personal goals within the organization environment.

The goals of the organization — more profits, more service or whatever — and the goals of the people in the organization are completely compatible, in spite of the efforts of some to establish conflict and hostility. Where conflict and hostility exist, they are the product of a lack of understanding — advertent or inadvertent — between the parties involved. Understanding will not be achieved until those involved understand the nature of man — the needs that motivate him and the work environment in which he strives to survive.

From my observation and experience, I have found that many people in the organization are demotivated inadvertently by managers. Seldom do administrators deliberately demotivate people and when you find managers who *do* undertake such an administrative practice, their objectives should be carefully considered and weighed. Too frequently management and unions take a miserable attitude toward people in general. Often this arises out of inadvertent misunderstanding of what it takes to motivate people in an organization.

Before we progress too far in this analysis, it would be best to define management so that the following discussion can be put in proper perspective. My definition is as follows: Management is a decision-making process of (1) determining and establishing objectives and (2) achieving those objectives by the best possible utilization of limited, allocated resources.

Managers are decision-makers. They make decisions to establish the objectives of the organization that will provide guidance and direction for other decisions and human behavior in the organization. Second, managers make decisions that will result in the achievement of the predetermined objectives by the best possible utilization of the resources allocated to them in any function and at any level in the organization.

Dr. John L. McKeever

The author has vast consultation experience in areas of organizational structure, management training, planning and performance evaluation. Also author of several technical papers on finance, human relations and motivation, Dr. McKeever is presently professor of management, Colorado State University, Ft. Collins, Colorado.

The most important resource allocated to managers in every organization is people, for all non-human resources lie fallow until the human element is applied. Yet, in our society we tend to use the human resource like we use non-human resources — we just use it; we don't motivate it; we discard it; we get rid of it; it is perishable and when things go bad we can always lay it off or fire it. Each resource allocated to managers must be used in the best possible way if organization goals and the personal objectives are to be achieved. The use of each resource requires the application of a certain body of knowledge if it is to be used properly in achieving objectives. In order to use human resources in the best possible way to achieve organizational objectives, managers must understand the nature of human behavior in the organization environment and what must be done to create a work environment conducive to motivation. To do less will result in a failure to achieve objectives.

The first thing managers should understand is that the people who come to work in the organization bring with them a set of personal goals that must be achieved in conjunction with the objectives of the company. Just enjoying the company of people is not sufficient in good management. You've got to understand the nature of every individual who is working for you. He is motivated by certain things and demotivated by others. And frequently he is *not* motivated by things you think are important.

Many managers have made some very bad mistakes in determining and identifying the goals of people in the organization. They still place too much emphasis on wages, salaries and fringe benefits. Salaries, wages and fringe benefits *are* motivators of people, but only to a certain extent. In addition to economic goals, management must provide satisfaction of a non-economic nature if employees are to

(continued)

RYAN GREENSAIRE II AND THE GREENSAIRE II CORE PROCESSOR

Good looking greens are important to you, so you already understand the need for good aerating equipment.

But the good will of your golfers is important, too, so you want to keep your greens in play.

Our Greensaire team will aerate and process aerator cores in one simple operation. No longer will you have to rake up windrowed cores separately. This saves you time, money and keeps your greens in play.

Your golfers stay happy. You stay happy.

The first part of our aerating system, The Greensaire II, is ruggedly constructed to remove 36 clean cores from every square foot of turf. One pass relieves soil compaction. Holes are up to 3″ deep and uniformly spaced on 2-inch centers. You're assured of straight in and out penetration. There are different size tines for different ground conditions.

The Whole-in-one:

your complete greens aerating system

The second half of the system, the Greensaire II Core Processor, attaches to the Greensaire II aerator. It conveys cores and plant matter over a perforated grate as soon as they're pulled from the ground. After breaking up on the grate, most of the loose soil is sifted back onto the turf through the grate as top dressing.

The remaining plant, thatch, roots and soil are carried to the top of the conveyor where they are sifted a second time. Remaining plant and thatch then go into a large removable bag. Up to 1000 square feet of green may be aerated before the bag needs emptying.

Only Ryan makes the Greensaire whole-in-one system, designed to save you time and money by combining two operations into one.

Protect your turf. And let your golfers play on through.

For more information, write:

RYAN
TURF-CARE EQUIPMENT

OMC-LINCOLN A DIVISION OF
OUTBOARD MARINE CORPORATION
2102 CUSHMAN DRIVE
P.O. BOX 82409
LINCOLN, NEBRASKA 68501

For More Details Circle (101) on Reply Card

be motivated to greater efforts and loyalty. In no way are the prior statements meant to downgrade the importance of salaries, wages and fringe benefits as employee motivators. They are important in the total effort but their importance is dependent upon and interrelated with other factors that employees feel are also important to their life in the work organization. Let us look more closely at the nature of man and the factors that motivate him. Although we will observe him in the work climate, the goals relate to his behavior in whatever environment we find him.

To the individual, his goals are important and any failure of management to consider his goals as important will generate a negative reaction. Therefore, a major responsibility of every manager in the organization is to (1) recognize the goals of subordinates and (2) to coordinate and integrate the goals of employees with the objectives of the organization.

Common Employee Goals

What are the goals of employees in the organization? They will differ for each employee depending upon his needs and personality. I have found that *all* employees have some common goals that they hope to achieve. The following are a few of these common goals.

To Do A Good Job — I have never found a person in an organization who did not want to do a good job. However, many people were not doing as good a job as they were capable of doing because they were not motivated to do better. In fact, many employees suffered feelings of guilt and inner conflict because they were not doing the job they were capable of doing. This is not only a terrible waste of resources, but it violates the very dignity of man.

To Aspire For Something Better Than He Has — Again, I have found that all employees in the organization aspired for something that they didn't have or that they wanted more of. For a variety of reasons, including personality, health, age, social relationships, sex, motivation and factors internal and external to the organization, employees aspired for similar and dissimilar things. Many aspired for promotions and sincerely felt that they could do a better supervisory job than their bosses. Many aspired for a larger salary, wage or fringe benefits. Some aspired for better job assignments while others aspired for better working conditions. The aspirations of people involved short and long-run time periods, impossible dreams and achievable goals. People aspire — even in organizations.

To Achieve Recognition — Every now and then employees like a little assurance (1) that what they are doing has some relevance in the overall achievement of organization objectives, (2) that they are doing the job expected of them and doing it well and (3) that their efforts are appreciated by peers, superiors, and subordinates. One doesn't have to be told too frequently that he is doing well, but an occasional compliment or word of assurance certainly does things for one's ego. Again the type or form of recognition is dependent upon the individual's personality, ambition, needs or goals. All too often, employees tell me that the only time they hear how they are doing is when they do something wrong.

Social Balance and Order — Many employees can't fully explain it, but they have goals that pertain to the maintenance of social order and balance in their work environment. Nothing is more upsetting to employees than management decisions that cause social frustrations and anxieties. Decisions to reorganize without thoroughly explaining the effect it will have on employees can be a very frustrating experience. Crisis management "austerity programs" that create personal survival anxieties can be very demotivational. Changing the physical environment of offices, departments or placements of desks, can create anxiety problems for employees beyond the understanding of most managers.

This does not mean that employees are not receptive to change. Quite the contrary, employees look forward to change if they understand the reasons for the change or are asked to participate in the change. It is axiomatic that people tend to fear the things they don't understand.

These are but a few of the common goals of employees that should be considered by managers in motivating people to the effort they are capable of achieving. It is a manager's responsibility to assist subordinates in the achievement of these goals and to remove or eliminate obstacles that may prevent the achievement of the goals. Too frequently, managers may create obstacles to the goal achievement of subordinates.

Employee Expectations

In addition to assisting subordinates to achieve personal objectives, the manager should actively and sincerely create an organizational climate conducive to employee motivation. Research I have conducted has revealed that employees anticipate and expect certain things from their bosses that are necessary to their well-being in the organizational environment. Of the many expectations that employees anticipate from management, four of the most important will be discussed.

One of the most important expectations of employees is fairness. As important as salaries or fringe benefits, fairness is anticipated by all employees upon accepting a position with an organization. Without fairness, what sort of an organizational environment would it be? Distrust and suspicion would run rampant.

Fairness covers a variety of areas to the employee. He expects fairness in job assignments. In every organizational sub-unit the job assignments include work activities that are sought after and those that are less preferable. In addition to less preferable assignments, the work loads of some employees may exceed that of others. Employees become fully aware of any unfair allocation of work assignments and where such practices prevail it creates human problems.

Employees anticipate that they will be considered fairly when promotions become available in a department. Thus, managers should update the performance files of subordinates constantly if an equitable choice for promotion is to be made from eligible employees. In addition, employees anticipate that salary increments and other rewards or benefits will be given on the basis of fairness and equity.

A second factor is that of honesty. Almost as important as fairness, honesty ranks high in employees' expectations. Not only do employees expect the truth in answers to questions or problems encountered in the performance of their work,

(continued on page 28)

Scotts' President F. Leon Herron, Jr., addresses guests and company associates at the dedication of the Dwight G. Scott Research Center near Marysville, Ohio. The oil painting of Scott, unveiled at the ceremony, will hang in the reception area of the Center.

Scotts Dedicates New Research Center in Ohio

O. M. Scott & Sons recently dedicated a new research facility near Marysville, Ohio. F. Leon Herron, Jr., the company's president, made the dedication address and christened the building Dwight G. Scott Research Center.

The facility includes a colonial-style main building with modern laboratories, growth chambers, administrative offices, a library and seminar auditorium. A separate wing contains four greenhouses.

Over 100 professional and specialist researchers, including plant pathologists, chemists, entomologists, agronomists, chemical engineers and geneticists, are housed in the new Center. The work is supplemented by regional screening and testing done at Scott's five research field stations strategically located across the U.S.

In addition to the research personnel, the administrative offices of the ProTurf Division are also located in the main building.

Turf Products Training Offered by Toro Company

The Toro Company will open its first turf products service training center in the Minneapolis suburb of Eden Prairie, Minn., in January.

The new school, now under construction, will be open tuition-free to employees of turf products customers in all markets and to service, sales and parts personnel of Toro distributors. There will be special courses for turf management students and vocational and technical school instructors. A total of 16 courses will be offered from January through June, with the first scheduled for Jan. 6 to 10.

Major elements of Toro's new service program, part of a five-year plan, include the following:

- Expansion of Toro mobile service units, fully-equipped vans staffed by highly-trained specialists, into additional distributor territories during 1975.
- Expansion of field service education into every turf distributor's territory. Training clinics cover such areas as techniques of mowing, engine and electrical systems maintenance, and troubleshooting. The field service education personnel will also conduct seminars for turf associations and at colleges and universities.
- A new warranty policy, extending the coverage period to one year.

Landscapers, Retailers Plan Joint Meeting

Nursery businessmen involved in landscaping and retailing will gather at the Galt House, Louisville, Ky., Feb. 16-20 for the first Joint Management Clinic sponsored by the National Landscape Association (NLA) and Garden Centers of America (GCA).

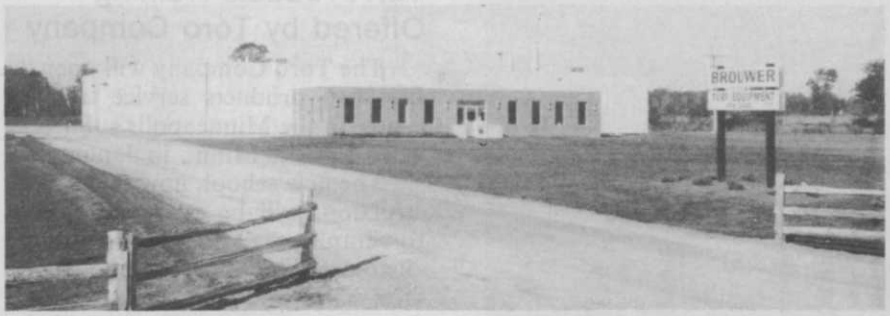
According to NLA President Tom Gilmore and GCA President Dan Capper, the two specialized fields — landscaping and retail garden centers — overlap in many areas, and rather than duplicating efforts with two separate meetings, it would prove much more valuable to the industry to hold a combined meeting.

NLA will meet Feb. 16-17. NLA and GCA will hold the combined meeting Feb. 18 to noon on Feb. 19. GCA will meet from noon on Feb. 19 to Feb. 20.

Complete details and registration forms are available by writing NLA/GCA Joint Management Clinic, 230 Southern Building, Washington, D.C. 20005.

The Arborists Association of New Jersey recently named Harry P. Banker the 1974 "Arborist of the Year," the organization's highest honor. Banker (left), vice president of Trees, Inc., West Orange, N.J., is pictured with Emid Cardell, last year's award recipient, and Patricia Sheehan, New Jersey Commissioner of Consumer Affairs.

the commercial sod industry



In mid-1974, Brouwer Turf Equipment Limited, one of the largest producers of sod harvesters, opened this new plant near Keswick, Ontario. The facility provides 22,000 square feet of production space and 2,200 square feet of office space.

Northrup King Introduces Aquila/Parade Blend

Northrup King, Minneapolis-based seed company, has announced the introduction of two compatible Kentucky bluegrasses that together form a high-performance, low-maintenance blend.

Called Aquila/Parade, the blend is the product of ten years of research led by agronomist Howard Kaerwer. Northrup King, according to Kaerwer, "is firmly committed to seed blending, having long recognized the drawbacks of monoculture turf."

Aquila Kentucky bluegrass, by itself, holds its density and dark green color, and maintains a healthy, weed-resistant stand well beyond the turf establishment period, even under low to moderate nitrogen fertilization. It requires less moisture to maintain its color and shows tolerance to drought conditions. Its color and medium leaf width make it compatible with a broad range of turfgrasses.

Parade Kentucky bluegrass rapidly develops a tough sod. It withstands heavy traffic better than many bluegrasses and recovers quickly from injury, making it recommendable for high-traffic areas such as athletic fields and golf course fairways. It is similar in color and leaf width to Aquila.

The Aquila/Parade combination, according to Kaerwer, provides the turf professional with an attractive turf that establishes fast and lasts through into fall. It gives good disease protection and stands up well under low management practices and heavy traffic.

Aquila/Parade as a single component can be blended with ryegrasses, fescues and other bluegrasses to give the turf professional a good combination of grasses to protect against disease and other stress factors.

Sod Producers to Meet At Tucson in February

American Sod Producer Association (ASPA) members will soon be heading for the Doubletree Inn, Tucson, Ariz., for their annual mid-winter conference, Feb. 27 to 28.

According to conference chairman and ASPA vice president Paul Florence, the Association's legal counsel Bill Harding will discuss compliance with the latest interpretations of regulations administered by regulatory governmental agencies.

The conference will also feature a "show-and-tell" in which individuals in the industry will share their techniques, innovations and experience in an informal discussion atmosphere.

For more information, contact Bob Garey, Association Building, 9th and Minnesota, Hastings, Neb. 68901.

Merrilyn Jacobs demonstrates the strong root system of healthy bluegrass sod during Maryland Turfgrass Association's (MTA) recent mini-tour for press representatives. Footmen for her "throne" are Dr. John R. Hall (left), extension turf management specialist, and Maurice H. (Gus) Day, seed and sod certification program supervisor for the State Department of Agriculture. Onlookers include (left to right): W. Lambert Cissel, Jr., owner-operator of Kimberthy Turf Farms, Inc.; Tom Stevenson, garden editor of the *Washington Post;* G. Laurence Moore, MTA president; and William T. Patton, chairman of the MTA publicity committee. Mrs. Jacobs is MTA executive secretary.

INSURANCE *(from page 14)*

basic contract. This umbrella contract is normally put over both auto and general liability.

Most arborists do have some equipment which should also be insured. Most insurance markets offer an all risk insurance contract for contractor's equipment. Although there are some exclusions on most any contract, this broad policy would cover a contractor's equipment against most losses. If this type of coverage on equipment seems expensive, the arborists may wish to look at high deductibles, which would decrease the premium and still cover the arborists against the catastrophic loss which may involve several pieces of equipment. This cost and deductible ratio will have to be closely examined and the arborist will have to decide how much of a loss he wishes to bear himself in order to save premium.

A mandatory insurance coverage if employees are involved, is workmen's compensation/employers liability. This is one of the most costly insurance coverages with which arborists are faced. Unfortunately, the experience of arborists has earned them the high rate which now prevails. The cost of back injuries, saw accidents and electrocution when working around power poles is still being paid for by the entire industry.

Reducing Costs

What is one to do about decreasing insurance costs and reducing his losses? The first step will be to make sure that the business is doing its best to eliminate such losses. No firm can hope to eradicate them, but their frequency and severity are definitely a function of safety awareness and this reflection will be passed along to the arborists in dollar savings and insurance premium. To eliminate losses, a safety program must be installed and carried out. If one doesn't know where to go to start such a program, he might check with his insurance agent or broker, who should be glad to help either through the insurance company or through the agent's own expertise.

Secondly, cost reduction is possible through your insurance costs, i.e., reduced premiums. There is a variation in price of insurance premium, just as no two arborists charge the same. Price will vary with service, experience and willingness of the insurance company to write the insurance agent's business. Needless to say, many insurance companies do not put arborists at the top of their list of priorities. Therefore, one should seek alternate insurance proposals. Remember to weigh the amount of service and expertise offered in the program along with the price. One might find in today's insurance market, the stability of his insurance carrier is as great a value as a 5-10% savings in insurance costs. Due to inflation, expensive money rates and adverse loss ratios, the insurance industry will be looking very closely at their portfolios. Many arborists will be requested by the insurance companies to find alternate insurance programs. This would be time-consuming and counterproductive for the arborist, unless the insurance agent is prepared and well-advised and can remarket the risk readily to another insurance company. Be sure that the company program selected is of good reputation and well-rated in the insurance industry. Ask for a rating from your agent, and ask for him to explain just what this rating means. He should be very happy to do so, and this will show him that you are looking for a quality program rather than a cut-rate insurance package.

PRINCETON

EQUIPMENT FOR THE SOD INDUSTRY

(Ask the Man Who Owns One)

PRINCETON MFG. CO.

2625 Johnstown Road, Columbus, Ohio 43219

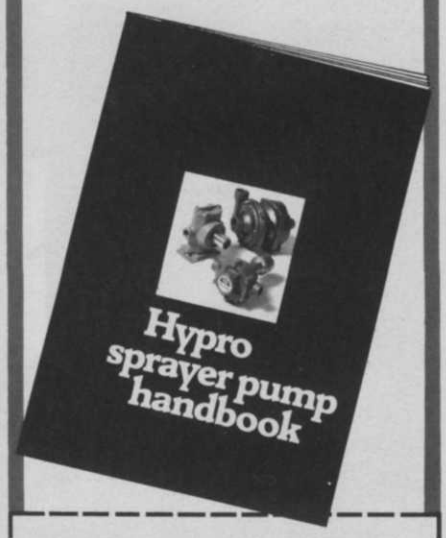
Tel. (614) 475-8520

Free sprayer pump handbook

Tells how to get the most out of your sprayer

A guide to pump selection

Pump performance curves & hook-up diagrams



Hypro. / ISi

A division of Lear Siegler, Inc.

347 Fifth Ave NW, St. Paul, Minn. 55112

Send me a free handbook.

Name _____

Address _____

Town _____ State _____

County _____ Zip _____

For More Details Circle (123) on Reply Card

For More Details Circle (110) on Reply Card

meeting dates

Western Association of Nurserymen, trade show and 85th annual convention, Plaza Inn, Kansas City, Mo., Jan. 5-7.

Mid Atlantic Golf Course Superintendents Association, 46th annual educational conference, Baltimore Hilton, Baltimore, Md., Jan. 6-7.

Tennessee Turfgrass Association, annual conference, Sheraton South Motor Inn, Nashville, Tenn., Jan. 6-7.

Indiana Association of Nurserymen and **Indiana Arborists Association,** winter meetings, Stouffer's Indianapolis Inn, Indianapolis, Ind., Jan. 7-9.

Penn-Del Chapter, ISTC, annual symposium, Marriott Motor Inn, Philadelphia, Pa., Jan. 8-9.

Kansas State Shade Tree Conference, K-State Union, Kansas State University, Manhattan, Kans., Jan. 9-10.

14th Annual Michigan Turfgrass Conference, Kellogg Center, Michigan State University, Lansing, Mich., Jan. 14-15.

New York State Arborist Association, 1975 convention, Syracuse Hilton Inn, Syracuse, N.Y., Jan. 19-22.

fairway weed-no-more®

New label.

Old friend.

The most effective, economical broadleaf herbicide on the market. **No common broadleaf turf weed yet has been able to withstand proper "fairway weed-no-more®" applications.** "Fairway weed-no-more®," with trimec®. The pros use it.

U.S. Patent 3,284,186

trimec TURF HERBICIDES®

PBI-GORDON CORPORATION
800 SOUTH THIRD STREET KANSAS CITY, KANSAS 66118

For More Details Circle (120) on Reply Card

27th Annual California Weed Conference, Sheraton Inn, Fresno, Calif., Jan. 20-22

1975 Arborist Seminar, Illinois Commercial Arborists and the Cook County Extension Service, Sheraton-O'Hare, Rosemont, Ill., Jan. 21.

New Jersey Recreation and Park Association, 9th annual symposium, Labor Education Center, New Brunswick Campus, Rutgers University, Jan. 21.

Southern Weed Science Society, 27th annual meeting, Sheraton-Biltmore Hotel, Atlanta, Ga., Jan. 22-24.

Rocky Mountain Regional Turfgrass Conference, Colorado State University, Fort Collins, Colo., Jan. 23-24.

Ohio Chapter, ISTC, 33rd annual meeting, Sheraton-Columbus Hotel, Columbus, Ohio, Jan. 26-28.

46th Annual Ohio State University Short Course, for arborists, turf managers, nurserymen, garden center operators and landscape contractors, Sheraton-Columbus Hotel, Columbus, Ohio, Jan. 26-30.

Associated Landscape Contractors of America, Inc., 13th annual meeting and trade exhibit, St. Petersburg, Fla., Jan. 27-31.

Turf Management Short Course, Nashville Center of the University of Tennessee, Nashville, Tenn., Jan. 27-31.

11th Annual Northern California Turfgrass and Environmental Landscape Exposition, San Mateo Co. Fairgrounds, San Mateo, Calif., Jan. 29-30.

Virginia Turfgrass Conference, Sheraton Motor Inn, Fredericksburg, Va., Jan 29-30.

Weed Science Society of America, annual meeting, Statler-Hilton Hotel, Washington, D.C., Feb. 4-7.

Annual Turf and Landscape Conference, sponsored by the New York Turf and Landscape Association, the Long Island Gardeners Association and the Hudson Valley and Long Island Cooperative Extension Service, Tappan Zee Inn, Nyack, N.Y., Feb. 5.

CONEXPO '75, construction equipment exposition and road show, McCormick Place and International Amphitheatre, Chicago, Ill., Feb. 9-14.

Midwestern Chapter, ISTC, annual meeting, Plaza Inn, Kansas City, Mo., Feb. 11-13.

American Institute of Landscape Architects, convention, Marriott Inn, New Orleans, La., Feb. 13-15.

American Society of Consulting Arborists, 8th annual conference, Don CeSar Hotel, St. Petersburg, Fla., Feb. 13-15.

Joint Management Clinic, for nursery businessmen involved in landscaping and retailing, sponsored by the National Landscape Association and Garden Centers of America, Galt House, Louisville, Ky., Feb. 16-20.

National Arborist Association, annual winter meeting, Don CeSar Hotel, St. Petersburg, Fla., Feb. 16-20.

Golf Course Superintendents Association of America, international turfgrass conference and show, The Rivergate, New Orleans, La., Feb. 16-21.

The Exciting New
TURFTYPE
Fine Leaved Perennial Ryegrass

GAME VARIETY TURF TYPE PERENNIAL RYEGRASS

FINE LEAVED GRASS WITH MANY NEW OUTSTANDING FEATURES!

A NEW VARIETY of Perennial Ryegrass . . . GAME, was developed in the Netherlands by a leading grass seed breeder.

GAME was bred from a selection of flat growing plants. All the plants collected showing characteristics desirable for lawn use were tested over a three year period under a system of close mowing. Only those plants which survived this test and showed the best of other traits were used in breeding GAME.

UNDER THE highest quality controlled conditions available, GAME is now being grown in Oregon on a Certified Basis.

GAME is extremely drought resistant, and in comparison to other varieties continues to show its great quality under dry conditions.

GAME has extremely high regrowth characteristics. It readily survives close mowing and hard wear.

S&G

For information call or write:

Willamette Seed & Grain Co.

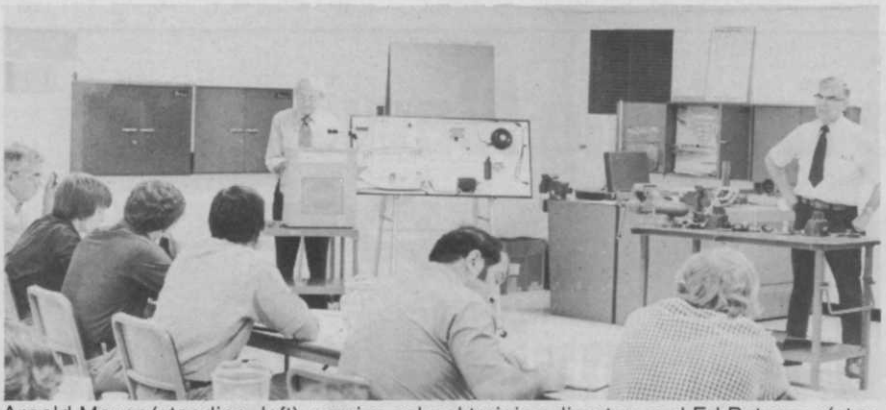
Bob Lowry
503—926-8883
P. O. Box 791
Albany, Ore. 97321

Max Elder
503—491-3675
P. O. Box 25
Shedd, Ore. 97377

Milton Tuck
503—926-8883
P. O. Box 791
Albany, Ore. 97321

Bob Richardson
503—491-3675
P. O. Box 25
Shedd, Ore. 97377

For More Details Circle (124) on Reply Card



Arnold Meyer (standing, left), service school training director, and Ed Peterson (standing, right), conduct a lecture demonstration on product electrical systems during a service school session.

FMC Holds School for Distributor Service Managers

FMC Corporation's Outdoor Power Equipment Division, manufacturer of Bolens lawn and garden products in Port Washington, Wis., has completed its 25th annual series of three-day schools for distributor service managers and field service men from across the United States and throughout Canada.

The classes are designed to keep the distributor service personnel up-to-date on technological changes, service techniques, new product designs and improvements. Special attention is also focused on increasing consumer knowledge of seasonal maintenance and safety features. In addition, the service representatives hear presentations from major suppliers and utilize simulated working conditions for troubleshooting and repair work. After the session, they are then qualified to instruct at similar schools for their dealers in their respective territories.

Arnold A. Meyer, service school training director, said, "These service schools play a vital role in qualifying our service people throughout the country in providing efficient service and promoting customer satisfaction."

Goodman Elected Fellow

Dr. Robert N. Goodman, chairman of the University of Missouri-Columbia (UMC) Department of Plant Pathology, has been elected a Fellow in the American Phytopathological Society.

Goodman was one of eight scientists selected for the honor from the 3,000-member society. Announcement of his selection was made at the society's recent annual meeting in Vancouver, British Columbia.

Recognized by the society as a distinguished scientist, writer and administrator, Goodman has just returned to UMC after presenting two invitational research papers in Japan.

In one of these, he reported his finding of the bacterial toxin that causes fireblight. In the other, he reported the discovery of a new disease defense system in plants. Both research findings are having a major impact on scientists' efforts to cope with plant disease problems now causing billions of dollars in food production losses around the world.

Goodman holds B.S. and M.S. degrees from the University of New Hampshire and a PhD from the University of Missouri.

MOTIVATING *(from page 22)*

but they expect to be completely informed — to provide only half-truths or partial facts will not suffice. Although the research placed honesty high in the expectations of employees, the writer found it difficult to comprehend situations in which managers might revert to the use of lies, half-truths or the withholding of information. However, a deeper evaluation of this factor revealed many situations in which the employee could substantiate such practices. In some cases, the follow-up revealed that managers often did not maliciously withhold information or relate half-truths but it was done for other reasons, many of which were later found to be poorly conceived. No matter the reason, once suspicion or a lack of confidence has been instilled in the mind of the employee it is a difficult attitude to overcome.

Third, employees expect the manager to provide opportunity in the organizational environment. Opportunity takes many specific forms but generally it reflects the expectations of employees to improve their lot in life in the organization. It provides something for each person to "shoot for" in the organization. It avoids the maintenance of status quo in the progression of each individual in achieving personal objectives in the organization.

Opportunity provides for each employee being considered for advancement — technically or managerially. Opportunity may involve an increase in salary, a fringe benefit, or training for a better job in the organization. In the goal structure of the employee, opportunity might provide greater security on the job.

When opportunity does not exist in an organization, the employee has little to aspire for and little to motivate him to achieve higher goals. Opportunity helps provide the means for the individual to achieve goals or to set higher ones.

Fourth, employees anticipate that their efforts and performance will be recognized by management. Recognition may be a simple pat on the back and a reassuring word that his contribution is appreciated.

Some managers stress the point that they reward employees on the basis of individual merit and contribution to the achievement of organizational objectives. Generally, most qualified employees prefer to have their performance evaluated separately and measured against that of other in competition for available rewards.

Although the aforestated employee goals and managerial expectations do not exhaust the motivational methods available to managers, they do provide some guidance in managerial action. Demotivated employees are not productive and loyal employees. And demotivated employees create problems in manpower planning no matter how scientific or rational the planning process. The greatest waste of resources in our society is that of the undeveloped potential of demotivated people in the organization.

I started collecting materials and ordering hydraulic cylinders, valves, pumps and hoses in January, 1965. By the end of February we started welding. After many trials and frustrations, on June 26, 1965, we finally dug our first tree — a four-inch caliper live oak — with the new hydraulic tree spade. Thus the "Texas Tree Shovel" was born. Although the operation was a success, so to speak, this first patient died. Further improvement of techniques gave good tree survival and the next year was spent moving trees in Brazoria County, Tex., on a part time basis.

At the 1965 Texas Association of Nurserymen Convention in Houston, I met Ralph Kemna of Minneapolis, Minn. Kemna had traveled the country extensively selling specialized equipment to nurserymen and was well aware of the need for mechanization in the industry. He encouraged me to show the machine at the International Shade Tree Conference the following year at Cleveland, Ohio. During that convention, I first became acquainted with Carl Boat, vice president of sales for Vermeer Manufacturing Company of Pella, Iowa. In the winter of 1967, a more polished version of the machine was taken to the Landscape Contractors Convention at Dallas.

After the convention, several people from Vermeer Manufacturing Company, including Boat, Carl Van Roekel, and Garry Vermeer, came to Fort Worth to watch us move large pecan trees in an experiment with Dr. Benton Storey, the pecan expert from Texas A&M University. This method of transplanting normally difficult-to-move pecans was a decided success. We transplanted 35 five-to-six-inch diameter pecans and two years later still had 100 percent livability, with many of the trees bearing nuts the same year they were transplanted.

Garry Vermeer was impressed and immediately offered to manufacturer and market the tree digger under our patent when finally issued. A contract with Vermeer Manufacturing Company was signed in 1967 to build and sell a version of our hydraulic tree digger. Patent Number 3,364,601 was issued to Albert H. Korenek on Jan. 23, 1968, and it is under this patend that Vermeer builds their "Tree Spade."

My tree production and sales company was known as Instant Shade Trees until August, 1967, when it incorporated as Instant Shade Trees, Inc., a Texas corporation, and is still operating as such. We presently have 25,000 oak trees from two to ten-inch caliper located on three tree farms totaling 75 acres near Alvin, Waco, and Houston, Tex. In our present operation we have ten hydraulic tree digging machines varying from a 14-inch diameter ball, 12 inches deep, up to a six-foot diameter ball, four and one-half feet deep and weighing 12,000 pounds.

The largest tree we have successfully moved is a 16-inch caliper live oak, 40 feet tall which was done with a 13-foot square concrete box requiring a 50-ton crane to handle. The greatest number of trees dug for a single job was 2,035, two- to four-inch caliper, which were dug over a five-week period for a nursery chain and delivered to stores all over central and western Texas.

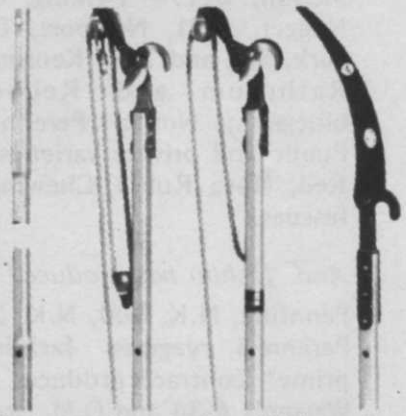
We are now mechanically boxing trees where in our nursery and have boxed 89 three-inch caliper in a single day. We have balled and burlapped 105 trees in a day with our crawler-mounted, 36-inch balling machine and have transplanted up to 14 of the six-foot diameter, six-ton ball trees in one day. Our largest big tree job to date is the Plaza del Oro development in Houston for Shell Oil Company where we planted 745 live oaks up to five-inch caliper and still have 600 more to plant in the next two years.

This past spring we transplanted 442 large native trees such as pine, magnolia, sweet gum, oaks, yaupon holly and viburnums on a project at Lake Conroe north of Houston. The developers were dissatisfied with poor livability of native trees transplanted earlier by others with smaller equipment. With our flat bottom ball and the extra depth of soil in proportion to the ball diameter, the trees have performed well. In our part of the country, we recommend 12 inches of ball diameter to one inch of caliper for moving native woods trees. With this formula we find that less than one percent of the trees moved are lost, provided they are properly maintained after transplant. Nursery grown materials are more adapted to transplanting and we have moved hundreds of 11- to 12-inch caliper oak, pecan and pine trees with our equipment that are doing extremely well. Care after transplanting is extremely important on trees this large.

Our out-of-state business is expanding and we have dug trees with our equipment in Ohio, Michigan, Illinois, Tennessee, Mississippi and Georgia, in addition to jobs all over Texas. At present we have two diesel rigs capable of cross-country travel and are ready to go anywhere in the continental United States where trees need transplanting with this highly-specialized equipment. Although Vermeer Manufacturing Company has done an excellent job in supplying mechanized digging tools for an industry which needed more mechanization, I feel equipment for the large tree moving business is still in its infancy. With public concern of ecology and the present environmental movements, each day we are confronted with requests to move larger trees that are beyond the capabilities of even our super large equipment. I personally believe that with further developments we will be able to move 12- to 24-inch caliper trees on location almost as easily as we can move eight- to ten-inch caliper trees today.

BARTLETT

Tree Trimmer with Fiberglass Handle



Features single-pulley (1¼" cap.) or double-pulley (1½" cap.) tree trimmer head section, and square-end mount pole saw head section with 4 ft., 6 ft. or 8 ft. extension sections with built-in, ALL-FIBERGLASS CONNECTING SLEEVE, and polypropylene rope.

Catalog free on request.

BARTLETT MANUFACTURING CO.
3009 E. Grand Blvd.
Detroit, Mich. 48202
Phone (Area 313) 873-7300

For More Details Circle (149) on Reply Card

QUALITY

Rolls Royce means quality. Quality performance, the standard by which others are judged. Another name synonymous with quality and performance is Jacklin. Jacklin, one of the world's largest producers of Kentucky bluegrasses and other varieties. When ordering seeds specify JACKLIN SEED.

JACKLIN PRODUCES:
Merion, 0217® Fylking, Glade, Cheri, Nugget, S-21, Newport, Delta, Geary, Park, Six, and Troy Kentucky bluegrass; Rathdrum and Reubens Canada bluegrass; Norlea Perennial ryegrass, Public and private varieties of Creeping Red, Nova Rubra, Chewings, and Hard fescues.

And Jacklin has produced on contract:
Pennfine, N.K. 100, N.K. 200 and Pelo Perennial ryegrass. Jacklin is also a prime* contract producer of: Adelphi, Warren's A-34 and O.M. Scott's Windsor Kentucky bluegrass.
Jacklin has built a reputation of fine quality and service for over 30 years. You can count on purity of content, high quality and sure germination.

*Available only through breeder and owner outlets.

Jacklin® Seed Company
Division of the Vaughan-Jacklin Corporation

people on the move

Tom Williams, appointed turf district manager for Rain Bird Sprinkler Mfg. Corp., a position created due to Rain Bird's sales force expansion to keep pace with its increasing turf market sales. In further company action, **Morgan Howard, Bruce Watson** and **Jim Hoover,** named district managers to handle turf irrigation sales.

* * *

James P. Tubbs, promoted to vice president, operations, of Ted Collins Tree and Landscape, Victor, N.Y.

* * *

I. Donald Rosuck, appointed vice president, finance, of Melnor's Turf Irrigation. **Malcolm Wayne,** appointed midwestern regional sales manager for Melnor lawn and garden products and underground turf sprinklers.

* * *

Kevin Sullivan, promoted to marketing manager of Stanley Hydraulic Tools, Inc.

* * *

Ali A. Akhavein, appointed product development supervisor for the agricultural chemical division of ICI United States Inc. He will be responsible for development of pesticide candidates for use in U.S. agriculture. Further moves within the division include: **John J. Lauber,** appointed registration supervisor and will coordinate assimilation of necessary data for EPA registration of agricultural chemical products; **George E. Glatz,** joined as technical sales representative.

* * *

Eugene J. Gibbons, joined Disston, Inc. as manager of international sales operations.

* * *

John I. Madigan, joined the agricultural division of Ciba-Geigy Corp. as railroad specialist in the industrial herbicide sales group and is responsible for developing marketing and sales programs for herbicides on railroads and petrochemical sites in the southwestern U.S.

* * *

John J. MacFarlane, Jr., named technical director for Gustafson, Inc., a distributor of seed treatment chemicals, equipment and technology.

* * *

Fred J. Meyer, promoted to executive vice president, finance and corporate operations, Sandoz, Inc. **Eugene A. De Felice,** promoted to vice president, corporate scientific development of Sandoz.

* * *

John Skinner, Jr., joined sales staff of Leary Supply Co., Colts Neck, N.J., wholesale distributors of greenhouse and nursery equipment and supplies.

* * *

Donald N. Arndt and **Howard A. Bacon,** elected corporate vice presidents of Walbro Corp. **Robert H. Walpole,** named vice president, international operations, and **L. E. Maxwell,** appointed marketing services manager.

* * *

Harbans Singh Bhella, joined the Botanic Garden of the Chicago Horticultural Society as research horticulturist. He will conduct a program to evaluate ornamental plants for landscaping use in the Chicago area.

MEET THE ASSOCIATIONS—

Backbone of the Green Industry

In recent months, we have realized more and more the need for unified voices in shaping the future of the Green Industry. Over-all professional standards and self-administration are realities that must be achieved before our industry groups can control their future business and accept fewer decisions made by outsiders. Accomplishments of these goals can best be achieved through active organizations and associations.

In September, WEEDS TREES and TURF polled leading organizations in the Green Industry. In addition to identifying information, we asked for objectives achieved in 1974 and proposed goals for 1975. Their replies are given below.

THE AMERICAN HORTICULTURAL SOCIETY

Mount Vernon, Virginia 22121
Tel. (703) 768-5700
O. Keister Evans, executive director

Officers: Dr. Henry M. Cathey, president; Dr. Gilbert S. Daniels, 1st vice president and treasurer; Mrs. Erastus Corning, II, 2nd vice president; Rachel Snyder, secretary.

Total membership: 30,000

Objectives met in 1974: The total membership reached 30,000 members recently. The Society's publication, *American Horticulturist* magazine, was changed this year from a quarterly to a bi-monthly issue. The Society also has a newsletter, *News & Views,* which is available to the membership on the months opposite the magazine.

Objectives proposed for 1975: Our objectives for the year 1975, and on a continuing basis, are a continuation of the rapid membership growth, improved publications, as well as additional publications, and a major fund raising campaign for the further development of the Society's services to its members, as well as for use in the development of the National Center for American Horticulture.

AMERICAN SOCIETY OF CONSULTING ARBORISTS

12 Lakeview Avenue
Milltown, New Jersey 08850
Tel. (201) 821-8948
Spencer H. Davis, Jr., executive director

Officers: W. Roland Shannon, president; O. J. Andersen, president-elect; F. Earle Martin, vice president; William P. Lanphear, secretary-treasurer; Walter P. Morrow, past president. **Directors:** Charles H. Michler; Arnold H. Webster; Walter J. Barrows; Wilfrid Wheeler, Jr.

Total membership: 125

Objectives met in 1974: (1) Excellent contacts with Insurance Services Office and now anticipated increase in insurance payments to homeowners and businesses for losses of shade trees. (2) Excellent contacts with congressional representatives and leads to Internal Revenue Services for ultimate changes in policy on allowances for casualty losses involving shade trees. (3) Increased public relations and funding for increased use of advertising in various law, horticultural and trade magazines resulted in increased number of requests for Directories of ASCA members and leaflet describing type of services they perform.

Objectives proposed for 1975: (1) Bring closer to fruition our attempts to raise insurance company payments on tree losses and IRS allowances on casualty losses through more realistic shade tree evaluation procedures in cooperation with International Shade Tree Conference and American Association of Nurserymen. (2) In cooperation with legal and insurance advisors, consider the problem of "malpractice and poor judgment suits" against any type of horticultural consultant. (3) Obtain qualified members in those parts of the United States and Canada which are not presently served by ASCA members.

AMERICAN SOD PRODUCERS ASSOCIATION

Association Building
9th and Minnesota
Hastings, Nebraska 68901
Tel. (402) 463-5691
Bob Garey, executive director

Officers: Charles Davis, president; Paul Florence, vice president; Charles L. Lain, secretary; Wallace A. Huggett, treasurer; Jack Kidwell, past president. **Board of Trustees:** Gerry Brouwer, Parker Shirling, Norm LeGrande, Thomas A. Thornton.

Total membership: 268

Objectives met in 1974: Two outstanding national meetings were held with national and international representation. The annual midwinter conference in New Orleans in February featured practical, profit-making or cost-reducing experiences of producers from various parts of the country. The annual convention and field days in Maryland in July, attended by over 400, was the largest convention in the history of ASPA. Outstanding equipment displays, field demonstrations and social activities contributed to the success. Continued circulation of specifications in the utilization and installation of sod for the use of architects, contractors, governmental agencies, and others. Through this manual, available from ASPA members, the users as well as the sod industry have been able to do an outstanding job

in meeting the requirements of the consumer. Continued to make available the Uniform Accounting System for ASPA members and particularly for the use of new members entering the field, to secure standardization and effective fiscal controls and help analyzing costs. Improved communication with the members through special bulletins and printed publications to apprise the membership of ideas and activities of beneficial information.

Objectives proposed for 1975: Conducting an extensive survey (with the cooperation and assistance of the various states) covering the entire sod industry to determine the "profile of the industry"; to utilize the totals obtained in working with other groups to enable them to realize the advantages and success of using sod; to be able to exert greater influence in developing workable legislation and regulation involving the industry; and to develop the influence and effectiveness of ASPA through expanded programs of direct and practical assistance to its members. To develop continuing procedures for surveying so as to determine trends and industry-wide information. To develop and expand public information activities by providing special brochures regarding sod, its advantages and utilization to be made available to ASPA members for distribution to their customers. Continue monitoring legislation and regulations at both the state and national level which may affect sod producers and to attempt to minimize government control and regulation consistent with good citizenship. Continue to provide members with practical direction and information to assist them in complying with various laws and regulations. Develop publicity regarding the advantages of using sod in appropriate places. Study and, if advantageous to the members, implement a program of group insurance for members to include all types of coverage needed by sod producers. Expand and increase membership in all categories for effective programming. Utilize Key Men designated in each state as a focal point for: secruing new members; reporting on sod producer activities within his state; monitoring legislation and regulatory activities within his state; and serving as a coordinator between state and regional sod producer groups.

ARBORICULTURAL RESEARCH AND EDUCATION ACADEMY*

*Affiliated with the International Shade Tree Conference.

Officers: Dr. Frank S. Santamour, Jr., president; Dr. Erik Jorgensen, president-elect; Dr. Hugh E. Thompson, vice president; Clark O. Eads, secretary-treasurer.

Total membership: 90

Objectives met in 1974: Organized and were accepted by the International Shade Tree Conference. First formal meeting was held.

Objectives proposed for 1975: Prepare a list of resource persons for various shade tree problems. Prepare a listing of state publications on shade trees. Run a workshop at the International Shade Tree Conference annual meeting.

ASSOCIATED LANDSCAPE CONTRACTORS OF AMERICA, INC.

1750 Old Meadow Road
McLean, Virginia 22101
Tel. (703) 893-5440
Thomas Hal Stewart, executive director

Officers: Ralph D. Stout, Jr., president; Lew Hammer, president-elect; Ronald A. Ahlman, vice president; Duane Nelson, vice president; Dick Brickman, secretary; William C. Byers III, treasurer.

Total membership: 400

Objectives met in 1974, proposed for 1975: The Associated Landscape Contractors of America, Inc. serves as a clearinghouse for information, and a means of working together for the mutual benefit of landscape contractors. Concern with environmental quality is exemplified in the Annual Environmental Improvements Awards Program. Concern for the continuing education of ALCA members is manifest in the annual meetings and trade shows, regional seminars and educational literature in the form of technical bulletins, information manuals and the *Action Letter* newsletter. ALCA focuses on the collective problems of its members and serves as the national spokesman for the landscape contracting industry.

GOLF COURSE BUILDERS OF AMERICA

806 15th Street N.W.
Washington, D.C. 20005
Tel. (202) 628-1833
Harry J. Lambeth, executive director

Officers: Frank A. Underwood, president; Lyle Thompson, president-elect; J. R. Costin, vice president; E. M. Witter, secretary; Gene M. Brown, treasurer.

Total membership: 43

Objectives met in 1974: We achieved a closer working relationship with Golf Course Architects; provided membership directories and correspondence with the Park & Recreation directors of the 200 largest cities; increased our advertising campaign and provided directories to Golf Course Architects and others.

Objectives proposed for 1975: To work closer with real estate developers regarding golf courses.

GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA

1617 St. Andrews Drive
Lawrence, Kansas 66044
Tel. (913) 841-2240
Conrad L. Scheetz, executive director

Officers: Charles G. Baskin, CGCS, president; Palmer Maples, Jr., CGCS, vice president; George W. Cleaver, CGCS, secretary-treasurer; Clifford A. Wagoner, CGCS, past president. **Directors:** Melvin B. Lucas, Jr.; Richard W. Malpass, CGCS; Charles H. Tadge, CGCS; Gordon C. Witteveen, CGCS; Theodore W. Woehrle, CGCS.

Total membership: 3,806

Objectives met in 1974: In brief, the goals were to improve educational opportunities, increase visibility for the Association and the superintendent, and to assist in improving the superintendent's abilities to deal with critical shortages through improved management. Efforts in the area of education included: (1) Renewed emphasis of the GCSAA seminar program. Two new seminars were prepared — pesticide chemical usage and

employee management techniques — and the seminar on financial decision making was revitalized and offered again. (2) In conjunction with the pesticide seminar, a comprehensive reference manual was prepared for members' use. (3) GCSAA's Educational Advisory Council, consisting of nine university turfgrass experts, was formed.

To improve the visibility of the Association and the profession of golf course superintendency, a multimedia program was designed and implemented, including the following facets: (1) GCSAA 'Citation of Performance" awards presented to five superintendents hosting major golf tournaments. (2) A new booklet, *You and GCSAA, A Meaningful Combination,* describes the purposes of the Association and advantages of membership; (3) *The Golf Superintendent, His Qualifications, His Responsibilities, His Requirements,* another new publication, tells the story behind the professional golf course superintendent. (4) The Association took an active role in the area of governmental relations, particularly with EPA and OSHA officials. (5) The Association continued to participate in allied association meetings.

Shortages of materials vital to golf course operation caused many problems for golf course superintendents, but most golfers did not notice any significant changes because of the following actions: (1)The Association's magazine, *The Golf Superintendent,* contained articles on shortages, suggested ways the superintendent might overcome potential problems, and forewarned of possible shortages. (2) A guide to OSHA requirements was prepared and distributed to all members.

Objectives proposed for 1975: (1) Working toward establishment of a pension plan for the membership. (2) Assist the superintendent in dealing with inflation problems. While information will be published in *The Golf Superintendent,* there will also be publications, talks, and so on, which will be helpful to members.(3) The Association plans to prepare its members to deal with governmental regulations and at the same time continue to insure that the superintendent's interests are fairly represented and protected. (4) Attention will be focused on the superintendent as an individual with responsibility to his course and community. Guides and instructions to help the superintendent become a more professional man will be given through talks, articles and personal contact in seminars and local chapter meetings. The certification program will continue to improve and gain in its value to the Certified Golf Course Superintendent.

Generally speaking, the Association will continue to strive toward its goal of upgrading and improving the image of the golf course superintendent and to disseminate information which will make possible a more efficient and economical management of golf courses throughout the world.

INTERNATIONAL SHADE TREE CONFERENCE

3 Lincoln Square
P.O. Box 71
Urbana, Illinois
Tel. (217) 328-2032
E. C. (Cal) Bundy, executive secretary

Officers: John Z. Duling, president; Jack R. Rogers, president-elect; Hyland R. Johns, vice president; E. B. Himelick, executive director; Dan Neely, editor.

Total membership: 2,394

Objectives met in 1974: Realized the establishment of three new state affiliated chapters: New Jersey Chapter, Kentucky Shade Tree Association and Indiana Arborists Association. Completed the work of microfilming the back issues and indexes of our monthly magazine, *Arborist's News.* The microfilm sets are now available for purchase by members, libraries and individuals. Received a substantial amount of Memorial Research Contributions from members and chapters in response to a special 50th Anniversary appeal by Immediate Past President F. Lewis Dinsmore. Enjoyed an informative 50th Anniversary Convention in the Marriott Motel, Atlanta, Ga., in August. Attending were 866

MECHANICALLY TRANSPLANT OR B & B LARGER TREES

than ever before with the original hydraulic tree spade without the cost of owning equipment. The largest known tree diggers (Texas Tree Shovel 3, 364, 601) available for contract. 72" diameter (10,000 lb. ball) down to 24" square digger for boxing. Equipment mounted on diesel rigs and crawlers. For quotation or information on mechanical transplanting, custom digging or boxing call: 713-433-4592.

INSTANT SHADE TREES, INC.
P.O. Box 45437
HOUSTON, TEXAS 77045

Seeking area or local representation, all inquiries welcome.

For More Details Circle (126) on Reply Card

safely lifts riding mowers up to 80" for quick and easy servicing

G&H uni-LIFT

motorized all-position stand for walking mowers also available

Dependable hydraulic power safely lifts 1000 lb. loads to any working height up to 80"—in less than 30 seconds. Operator faces lifting action—reaches all controls without moving. Runways are 72" long and are adjustable in width from 17" to 46". No permanent installation required. Write today.
G & H Products, Inc., Dept. WT
St. Paris, Ohio 43072

For More Details Circle (105) on Reply Card

rated #1 for overall performance

..MAN MADE

Adelphi KENTUCKY BLUEGRASS

(U.S. Plant Patent No. 3150)

NOW SETS U.S. GOVERNMENT* STANDARDS FOR THE DARK GREEN COLOR OF ALL FUTURE BLUEGRASSES!

*Source: Plant Variety Protection Office, U.S. Dept. of Agriculture

In 10 years of man-controlled parentage breeding and over 7 years of university and field testing, "Adelphi" has earned a top rating for overall performance.

"Adelphi" offers the features most wanted in turf. Professionals and home gardeners, alike, are making it the most widely accepted and universally acclaimed bluegrass in 30 years.

For good looks throughout the entire growing season ...excellent density...good disease resistance and tolerance to moderately close mowing, it's...MAN-MADE "Adelphi"...A FIRST IN TURF!

For Details Contact:

J & L ADIKES, Inc.
Jamaica, N. Y. 11423

JONATHAN GREEN & SONS
Kearny, N.J. 07032

NORTHRUP, KING & CO.
Minneapolis, Minn. 55413

VAUGHAN'S SEED CO.
Bound Brook, N.J. 08805 • Downers Grove, Ill. 60515

members, guests and their families. Over 30 scientists and practitioners from many disciplines and experiences presented educational papers to keep arborists informed of technical and professional developments.

Objectives proposed for 1975: Will proceed to broaden membership services by changine the name of our monthly magazine, *Arborist's News,* to *Journal of Arboriculture* and develop the publication into a full-fledged journal, including referred papers along with other articles and current developments in arboriculture. Will plan to increase our sponsorship of arboriculture research projects by establishing a Memorial Research Trust Fund having tax-exempt status for donors and recipients. Will cooperate with other associations in revising our publication, *Shade Tree Evaluation.* Will continue to develop guidelines to assist the government in implementing federal pesticide legislation.

NATIONAL AGRICULTURAL AVIATION ASSOCIATION

Suite 808
1101 17th Street N.W.
Washington, D.C. 20036
Tel. (202) 223-2822
F. Farrell Higbee, executive director

Officers: Al F. Johnson, president; James L. Maxwell, vice president; Robert Copeland, secretary; Robert Aukes, treasurer.

Total membership: 908

Objectives met in 1974: During 1974, we were very fortunate as an Association to obtain 100 percent of the fuel requirements for agricultural aviation. Objectives proposed for 1975: In 1975, we hope to expand our new monthly publication, *The World of Agricultural Aviation.*

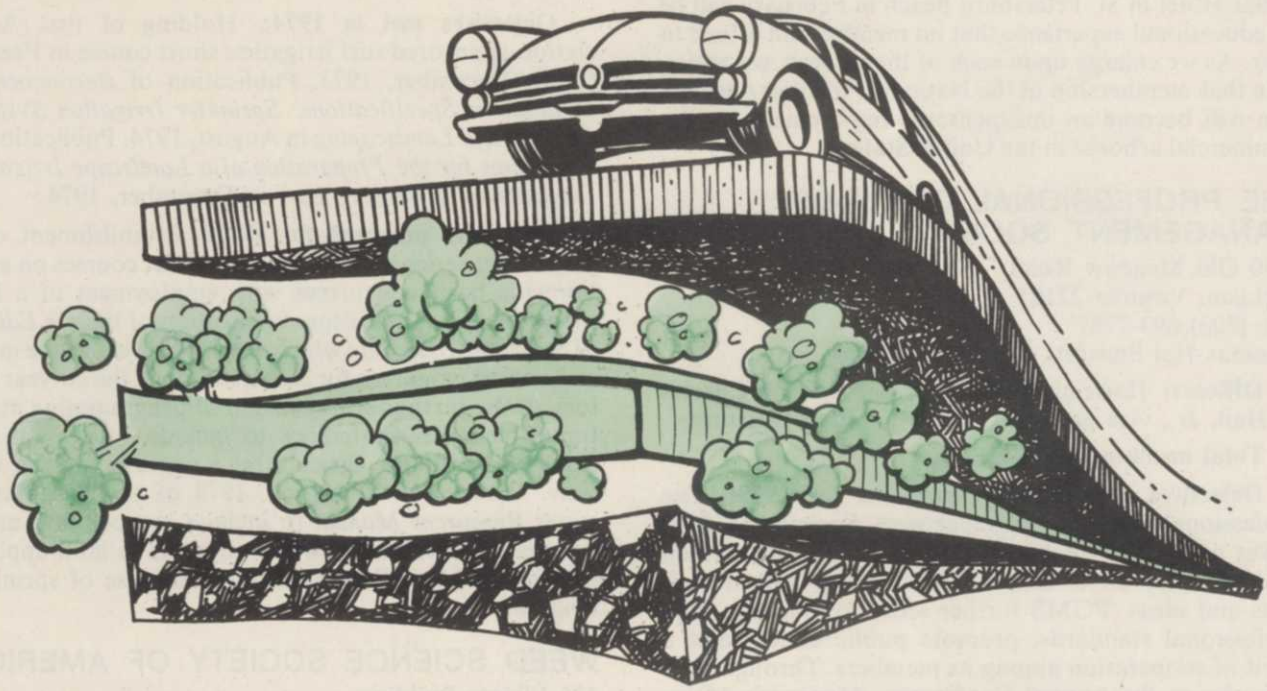
NATIONAL ARBORIST ASSOCIATION, INC.

3537 Stratford Road
Wantagh, New York 11793
Tel. (516) 221-3082
Robert Felix, executive secretary

Officers: W. Roland Shannon, president; Thomas A. Morrison, 1st vice president; Boyd Haney, 2nd vice president; Gerald E. Farrens, secretary; Kenneth Kirk, treasurer; John A. Shullenbarger, past president. **Directors:** Larry Holkenborg, Walter E. Money, Bruce M. Walgren.

Total membership: 240

Objectives met in 1974: In 1974, we appointed a new executive secretary who has revitalized the National Arborist Association by bringing it to the members via attendance at regional meetings and visits to member offices all over the country. Our monthly newsletter, *Arborist Action,* has been expanded to an eight-page issue which keeps our members abreast of new developments both legislative and regulatory that affect the tree care industry as well as other pertinent material. We have supplied our members with Monographs to help them improve management techniques. Our N.A.A., OSHA manual has been updated and we have represented ourselves when necessary in Washington. We have given financial and technical support to the impending certification of pesticide applicator requirements.



Put a "gas blanket" between you and weed breakthrough.

CASORON® – for years leader in orchard, nursery, landscaping and industrial weed control – is *now approved for use under asphalt*. Use it where weeds and roots do the most damage: recreational courts, bicycle and golf cart paths, paved sidings, airport runways, parking lots, etc.

Works like nothing you've ever used before. Applied as a granular or wettable powder over the subgrade, CASORON soon begins to emit a weed-killing gas. Once the asphalt is applied, it traps the gas creating a long time blanket and protection against weed growth and weed breakthrough.

Why CASORON instead of sterilants: Simply because you can effectively kill weeds and stop root growth without risking damage to adjacent ornamentals. CASORON is a root inhibitor, ornamental roots will stop growing as they contact the gas blanket. They won't systematically translocate the herbicide. And they won't erupt through the blanket into the asphalt. Also, CASORON's blanket of protection stops weeds from germinating – but won't sterilize areas for future planting. *Other uses:* CASORON is highly effective around right-of-ways, curbs, landscaped areas and fences. Over 60 perennial and annual weeds and grasses can be controlled.

If asphalt is in your plans for the future, specify CASORON. It's a gas. 4-4891

CASORON
DICHLOBENIL WEED & GRASS KILLER

T-H

THOMPSON-HAYWARD CHEMICAL COMPANY
P. O. Box 2383
Kansas City, Kansas 66110

For More Details Circle (125) on Reply Card

Objectives proposed for 1975: For 1975, we expect to enlarge upon what we did in 1974 as well as develop new member services. Our 1975 annual meeting at the Don CeSar Hotel in St. Petersburg Beach in February will be an educational experience that no member can afford to miss. As we enlarge upon each of these areas, we anticipate that membership in the National Arborist Association will become an indispensable requirement for the commercial arborist in the United States.

THE PROFESSIONAL GROUNDS MANAGEMENT SOCIETY

1750 Old Meadow Road
McLean, Virginia 22101
Tel. (703) 893-7787
Thomas Hal Stewart, executive director

Officers: Harleigh R. Kemmerer, president; Charles L. Hall, Jr., vice president; Allan Shulder, treasurer.

Total membership: 600

Objectives met in 1974, proposed for 1975: The professional Grounds Management Society (PGMS) serves as a legally constituted medium through which members may direct and coordinate their collective efforts and ideas. PGMS further seeks to maintain high professional standards, promote public esteem and a spirit of cooperation among its members. Through such activities as the Annual Conference, *Manager's Memo* newsletter, regional seminars, and surveys and research, PGMS seeks to promote the continuing education of grounds managers. PGMS also serves as national spokesman for the grounds managers and seeks to keep members informed on legislative proposals, administrative agency activities and other matters affecting the profession.

SPRINKLER IRRIGATION ASSOCIATION

13975 Connecticut Avenue, Suite 310
Silver Spring, Maryland 20906
Tel. (301) 871-8188
Walter D. Anderson, executive secretary

Officers: James D. Pichon, president; W. J. (Jack) Ogle, vice president and president-elect; Taylor Ramsey, treasurer. **Directors:** Paul Bohley, Joseph Fiala, Joseph Harris, W. J. Liddell, Edward Newbegin, R. A. Wahl, Ray York and Gary Underhill.

Total membership: 400

Objectives met in 1974: Holding of first Association-sponsored turf irrigation short course in Fresno, Calif., December, 1973. Publication of *Recommended Installation Specifications: Sprinkler Irrigation Systems for Turf and Landscaping* in August, 1974. Publication of *Guidelines for the Preparation of a Landscape Irrigation Contractors' Licensing Law* in December, 1974.

Objectives proposed for 1975: Establishment of a permanent series of turf irrigation short courses on a nationwide basis concurrent with employment of a full-time educational director. Publication of the *4th Edition of Sprinkler Irrigation* which will include extensive material on turf irrigation for the first time in the 20-year history of the textbook. Expansion of programming at national technical conference to include concurrent sessions on turf and agricultural irrigation for the first time. Publication in March, 1974 of the *SIA Wastewater Resources Manual* to include sections and material pertinent to use of waste effluents in land application on turf installations through the use of sprinkler irrigation.

WEED SCIENCE SOCIETY OF AMERICA

425 Illinois Building
113 North Neil Street
Champaign, Illinois 61820
Tel. (217) 356-3182

Officers: E. L. Knake, president; C. R. Swanson, president-elect; E. G. Rodgers, past president; A. P. Appleby, vice president; R. D. Ilnicki, secretary; F. W. Slife, treasurer; T. J. Sheets, WSSA editor. **Directors** (in addition to officers): D. E. Bayer, C. J. Cruse (executive secretary); S. N. Fertig; L. S. Jordan; M. K. McCarty; M. G. Merkle; J. D. Nalewaja; W. J. Saidak; R. D. Sweet; William Welker; J. L. Williams.

Total membership: 1,900

Objectives met in 1974, proposed for 1975: The Weed Science Society of America (WSSA) is organized to promote the development of knowledge concerning weeds and their control; to foster unity in research, legislation, regulation and terminology; to encourage high standards in weed science education; to stimulate quality research; and to facilitate publication of weed science information. Weed Science includes the study of weeds and their control by cultural, mechanical, biological and chemical means. WSSA members are engaged in varied activities including research, teaching, extension, legal regulation, product development and marketing. They are involved in controlling weeds in field crops; horticultural crops; pastures and rangelands; forests; aquatic areas; and non-crop areas such as lawns, recreational areas, roadsides, railroad and utility rights-of-way, and industrial sites. WSSA has encouraged and worked closely with the Latin American Weed Science Society, the Asian-Pacific Weed Science Society, and other weed control organizations of the world. It also works closely with other professional organizations having related interests, and is a member of CAST (Council for Agricultural Science and Technology). WSSA publications include *Weed Science*, the official journal of WSSA, bimonthly; *Weeds Today*, a quarterly publication; and the *WSSA Newsletter*, published at least four times a year.

1974 Article and Author Index

KEY: Feature article (fa); news story, (ns); conference report, (cr); book report, (br); obituary, (o); editorial, (ed); and column, (c); government news, (gn).

A

Issue Page

AMVAC Chemical Corp Plans Attack on Aquatic Weeds (ns) ..... Feb. 64
ASCA Meeting Report, What Is The Real Value of A Tree (cr) ..... May 58
ASPA Convention Report, The Growing Sod Market (cr) ..... Sept. 18
ASPA Summer Meeting Slated For Maryland (cr) ..... Apr. 56
ASPA Winter Conference Slated For New Orleans (cr) ..... Jan. 60
(Accutrol) Fewer Weeds, Better Drift Control by Robert Eddy (fa) ..... Nov. 41
Ackley Mfg. Co. Name Changes to Stanley Hydraulics (ns) ..... Feb. 64
Adams, James W., New Vice President and General Manager for Toro Irrigation Division (ns) ..... Mar. 68
Agrico Division Names Sinclair President (ns) ..... Sept. 22
Agr. Chemical Association Sells Education Kit (ns) ..... Apr. 72
Agricultural Chemicals Association, Two Honored by (ns) ..... Oct. 32
Alabama Student Wins Southern Turf Scholarship (ns) ..... Feb. 86
(Alar) Foam or Spray? Economics of Growth Regulator Application by Henry Hield (fa) ..... Oct. 12
(Algaecides) Dawn Attack . . . On Hydrilla by Doug Jones (fa) ..... June 38
American Garden Products Names New Vice President (ns) ..... Sept. 22
American Sod Growers Association Convention Planned For July (cr) ..... June 28
American Sod Producers Association, Goal Met on OSHA Regulations (gn) ..... Jan. 8
American Sod Produces Association Summer Field Days (ed) ..... Aug. 10
Application, Custom, The Herbicide Market (fa) ..... Feb. CC
Applicator, Custom, Sales Up For Ohio (fa) ..... Mar. 18
Applicators, Certified, Commercial, EPA Publishes Proposed Standards (gn) ..... Apr. 8
Aquatic Environment Described in EPA Book (ns) ..... Feb. 32
(Aquatic Weed Control) Dawn Attack . . . On Hydrilla by Doug Jones (fa) ..... June 38
(Aquatic Weed Control) Preliminary Herbicide Tests Halt Growth of Cabomba (ns) ..... Apr. 66
(Aquatic Weed Control) Water Hyacinth Clearance Announced by Rhodia (ns) ..... June 45
Aquatic Weeds, AMVAC Chemical Corp. Plans Attack On (ns) ..... Feb. 64
Aquatic Weeds, The Herbicide Market by Jack Murnighan (fa) ..... Feb. SS
(Aquatic Weeds) Water Hyacinth Nutrient Potential Explored (ns) ..... Mar. 36
Arborist in the Witness Chair by Arnold Webster (fa) ..... Oct. 17
Arborist's Insurance Market, The, by Stanley Loar (fa) ..... Dec. 14
Army Weed Controllers Transferred to USDA (ns) ..... Sept. 21
Associations, Meet the — Backbone of the Green Industry (cr) ..... Dec. 31
Austin Products Company, Formerly Known As Servis Equipment Co. (ns) ..... May 64
Automatic Rain Company Purchases Irrigation Industries, Inc. (gn) ..... July 8
(Awards) Ohio Turfgrass Conference, Green Grows the Business in Ohio (cr) ..... Feb. 18

B

BT, What Is (ns) ..... Mar. 16
Baltimore's Sparrows Point, More Plan, Better Management (fa) ..... June 14
Banker, Harry, National Arbor Day Support Sought by (ns) ..... Mar. 60
Barnett Named President of ICI United States Inc. (ns) ..... Aug. 34
Bartlett, R. A. Elected President of F. A. Bartlett Tree Company (ns) ..... July 39
Batteries, Golf Car, New Ratings Match Power To Use by Robert L. Balfour (fa) ..... Jan. CC
Battery Care, Positives and Negatives of by Arvid Halla (fa) ..... Jan. NN
Battery Life, Three Point Program Helps Increase (ns) ..... Feb. 30
(Beatty, Rita Gray) Author, The DDT Myth, Green Industry Book Report (br) ..... Apr. 10
Beetle, Japanese, Experimental Insecticide Controls (ns) ..... June 46
Beetle, Japanese, Quarantine Extended In Six States (ns) ..... Apr. 44
(Benlate) DED Controls: Will Systemics Work by Richard J. Campana (fa) ..... May 16
Bent on Better Fairways by Dr. Johnny R. Thomas (fa) ..... Jan. 58
Bermudagrass Care Requires Many Inputs (ns) ..... Feb. 70
Bermudagrass, Forward Pass For by Charles Pyron (fa) ..... Jan. 12
Bermudagrass, North/South Transition Zone Ready For (ns) ..... Feb. 61
Bluegrass Insecticide Study Progress Report Presented (ns) ..... Mar. 72
Bonds and Bonding by John J. Curtin, Jr. (fa) ..... June 16
Borrowing, Essentials of by Dr. Eric Lawson (fa) ..... June 48
(Broadleaf Control) The Mississippi Method by John L. Snuggs (fa) ..... July 11
Brush Control, Dormant, With Less Oil (fa) ..... Feb. 16
(Brush Control) Old Technique . . . New Look by Richard D. Locke (fa) ..... Aug. 22
(Brush Control) Target: Railroad Weeds by Richard W. Fields (fa) ..... Apr. 36
Brush Disposal — Problem to Profit (ns) ..... Oct. 42
Bucket Rescue, 11 Steps to Safety by Robert E. Jones (fa) ..... May 21

C

Cabomba, Preliminary Herbicide Tests Halt Growth Of (ns) ..... Apr. 66
(Cal-Turf, Inc.) Netting for Sod, Reality From Imagination (fa) ..... Apr. 54
California Distributorship Established by Vermeer (ns) ..... Apr. 64
Case, J. I., Outdoor Power Equipment Div. Expands Production Facilities (gn) ..... Aug. 8
(Casoron) The Case of the Invisible Vapor Barrier by Donald Fox (fa) ..... Aug. 11
Cast Iron Pipe Research Assoc. Offers Booklet (ns) ..... Jan. 55
Certification Programs, State Pesticide Applicator, No Funds Available to Subsidize (gn) ..... July 8
Chain Saws Hot Property, Says Echo Marketing Boss (ns) ..... Mar. 51

Issue Page

(Charles Machine Works) Manufacturer Finds Success In Prairie (ns) ..... June 18
Chelated Micronutrients From New Plant (ns) ..... May 60
Chemical Composition of Trade Names Studied (ns) ..... Mar. 74
Chemical, New, Promises Control of Johnsongrass (ns) ..... Mar. 72
Chemical Weed Control Results In Cleaner Air (ns) ..... Apr. 75
(Chippers) Labor Cost Savings in Colorado (ns) ..... Mar. 37
Chlordane Capacity Boosted by Velsicol (ns) ..... May 62
Chlorosis, Creative Cure For by Warren D. Wolfe (fa) ..... July 44
Ciba-Geigy/Funk Merge (ns) ..... Sept. 21
Ciba-Giegy Move Announced (ns) ..... Oct. 41
Club Car of Augusta Ga. Acquired by Johns-Manville (ns) ..... Jan. 68
Collier Carbon & Chemical Corp. Constructs New Fertilizer Plant (gn) ..... Oct. 8
Conservation, Energy, Tips Available From Toro Co. (ns) ..... Apr. 74
Contaminants, Turf, by Dale E. Kerns. (fa) ..... Mar. 76
Couch, Dr. Houston B., Diseases of Turfgrasses (br) ..... Mar. 13
Couch, Dr. Houston B., Probing the Unseen, The Cover Story (fa) ..... Mar. 10
Crime, Undercover Agents Fight Green Industry (ns) ..... Feb. 78
Cushman/Ryan Grant Aids Turf Grooming Study (ns) ..... Nov. 46
(Cutrine) Dawn Attack . . . On Hydrilla by Doug Jones (fa) ..... June 38

D

DDT, Contingency Use of Granted (fa) ..... Apr. 14
DDT Myth, The, Green Industry Book Report (br) ..... Apr. 10
DDT, U.S. Forest Service Plans Go-Ahead For (ns) ..... May 63
DED Controls: Will Systemics Work by Richard J. Campana (fa) ..... May 16
(DED) Tree Care: Helping Nature With Science by D. I. Dodds (fa) ..... Jan. 14
(Dasanit 15G) Nematode Control Pays by Dr. R. V. Sturgeon, Jr. (fa) ..... Apr. 18
Dealer Award, Outstanding, Presented to Porter Bros. (ns) ..... Apr. 50
Dealer Award, Outstanding, Presented to Watson Dist. (ns) ..... Apr. 64
(Delnet) Plastic Netting — Continuing Research (fa) ..... Aug. 26
DeSalvo Elected President of Pesticide Association (ns) ..... Oct. 32
(Diamond Shamrock) The Herbicide Market Custom Application (fa) ..... Feb. CC
Dieldrin and Aldrin, EPA's Intention to Suspend Label Registrations (gn) ..... Sept. 8
(Dipel) What is BT (ns) ..... Mar. 16
Disease Control Planning is Needed (ns) ..... Mar. 10
Diseases of Ornamentals Subject of Texas Research (ns) ..... Aug. 36
Diseases of Turfgrasses by Dr. Houston E. Couch (br) ..... Mar. 13
Dow Chemical Announces New Plant for Production of Fumazone Nematicide (gn) ..... Nov. 10
(Drip Irrigation) Automatic Watering System — Cutting Chemicals Costs (fa) ..... Nov. 38
Drip Irrigation Lessens Nitrate Runoff (ns) ..... Mar. 84
(Drip Irrigation) San Diego Drip Exhibit Slated For July (ns) ..... June 42

E

(E. & S. Soil & Peat Industries, Inc.) Topdressing Supplier Opens New Plant (ns) ..... Mar. 85
EPA Book Describes Aquatic Environment (ns) ..... Feb. 32
EPA Plans Effluent Standards For Nine Poisonous Substances (gn) ..... May 32
EPA Ruling on Use of DDT for Control of Tussock Moth Coming (gn) ..... Mar. 14

Issue Page

Echo Chain Saw Division Hosts Distributor Meeting (ns) ..... Nov. 22
Energy Conservation Tips Available From Toro Co. (ns) ..... Apr. 74
Energy Crisis and The Turf Industry (cr) ..... Apr. 16
Energy Crisis on Agenda, Golf Foundation Meets (ns) ..... Mar. 51
(Energy Crisis) Where Are They Now (ed) ..... Apr. 6
(Energy Shortages) People Power — An Energy Source (ed) ..... Jan. 6
(Energy Situation) Sprinkler Irrigation Association Report (cr) ..... Apr. 26
Engine and Pump Care, Irrigation by Ray Lariviere (fa) ..... Jan. 22
Engines, Help Start In Cold Weather (ns) ..... Mar. 60
Environmental Improvement (ed) ..... June 6
Engines, Nine Points For Smooth Running by Daniel L. Hedglin (fa) ..... Jan. FF
Environmental Stress Victimizes Windbreaks (ns) ..... May 60
(Environmentalists) Where Are They Now (ed) ..... Apr. 6
Equipment Dealers, European, See Mfg. Plant, Sod, Turf (ns) ..... Mar. 80

F

FMC Builds Plant in Aiken, S.C. (ns) ..... Mar. 51
FMC Holds School for Distributor Service Managers (ns) . Dec. 28
FIFRA, Sections Four of, Becomes Final Oct. '74 (gn) ..... Sept. 8
Faculty Award, Distinguished, Given to Forest Geneticist (ns) ..... Apr. 64
F.A.N.N.I.E. Award, 1973 Presented to Bryson James (ns) ..... Apr. 72
Felix, Robert, NAA's, Named Exec. Secretary (ns) ..... May 12
Fertigation: Double Duty For Your Irrigation System by Larry A. Weber (fa) ..... July 22
Fertigation: Double Duty For Your Irrigation System by Max A. Brown (fa) ..... July 23
(Fertilization) $20 Thousand In Savings Through Labor Management by Chet Wender (fa) ..... Feb. 14
Fertilization, Young Innovators Introduce Spike Method of (fa) ..... May 54
Fertilizer Shortages, Chemist Predicts Lasting (ns) ..... June 50
Fertilizer, Two More Seasons of Tight (ns) ..... Sept. 20
Fescues, Fine, Right for Roadside Uses (ns) ..... Mar. 56
Fewer Weeds, Better Drift Control by Robert E. Eddy. ..... Nov. 41
Film, Product Liability, Available from Kaiser (ns) ..... Mar. 68
Fire Extinguishers, Aluminum-shelled Dry Chemical, to be Tested at 12-Year Intervals (gn) ..... Feb. 12
Firewood, Extra Cash From, Helps Tree Care Firms (ns) ..... Mar. 52
Floratam Grass Hits Consumer Market (ns) ..... May 62
Florida Turf-Grass Assoc. Changes Meeting Format (ns) ..... May 53
Foam or Spray? Economics of Growth Regulator Application by Henry Hield (fa) ..... Oct. 12
Forest Service, U.S., Permits Issued (ns) ..... Mar. 51
Forest Service, U.S., Plans Go-Ahead for DDT (ns) ..... May 63
Forestry Program, A Community, Shade Trees For Cities by Dr. John W. Andresen and Philip R. Dolberg (fa) ..... May 26
Forklifts, Bill Johnson Uses, Equipped With Torque Converter (ns) ..... Mar. 71
'Formost', A Family Affair For, Golf Course Irrigation Installation (fa) ..... July 30
Foy, Dr. Chester L., Resumes Position as Editor of Weed Science (ns) ..... June 42
Freeport Minerals Company Announces Sulpher Price Rise (ns) ..... May 63
Fuel Conservation Essential for U.S. and World (gn) ..... May 32
(Fungicides) Disease Control Planning is Needed (ns) ..... Mar. 10
(Fungicides) More Play, Better Management, Baltimore's Sparrows Point (fa) ..... June 14

Issue Page

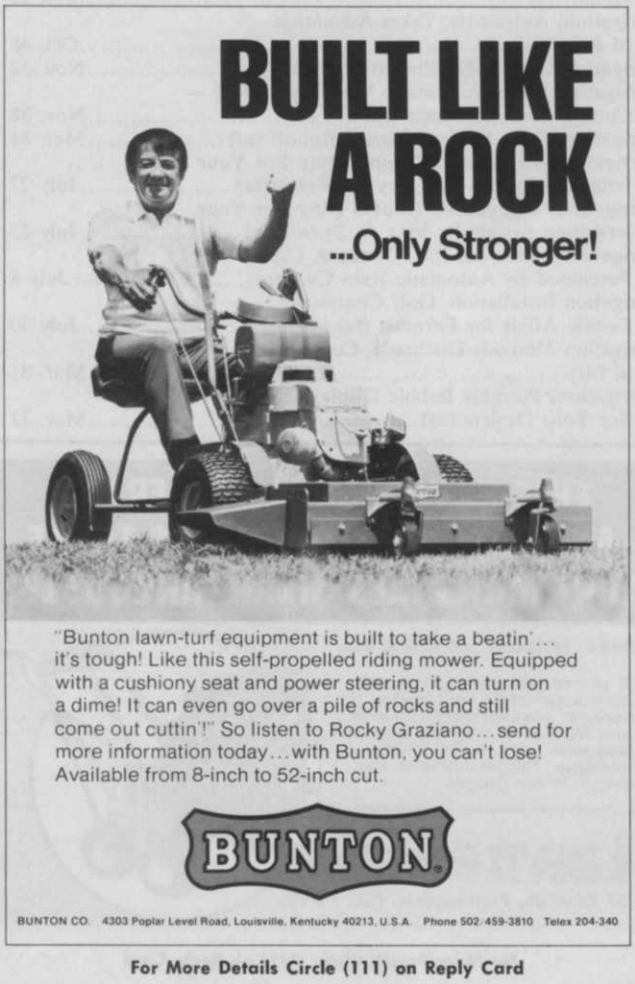
(Fungicides, Systemic) DED Controls: Will Systemics Work by Richard J. Campana (fa) ..... May 16
Fylking, Official Grass of Expo '74 (ns) ..... June 42

G

GCSAA Conference and Show, Turfgrass: The People Pleaser (cr) ..... Apr. 20
GCSAA Forms Educational Advisory Council (ns) ..... Oct. 24
GCSAA 1974 Executive Committee (cr) ..... Apr. 22
Glade Kentucky Bluegrass Now Available (ns) ..... Feb. 32
Golf Car Batteries, New Ratings Match Power to Use by Robert L. Balfour (fa) ..... Jan. CC
Golf Car Trouble-Shooting by Charles W. Poole (fa) ..... Jan. HH
(Golf Cars) Nine Points For Smooth Running Engines by Daniel L. Hedglin (fa) ..... Jan. FF
Golf Cars Private vs. Club Ownership by Denver Brown (fa) ..... Jan. DD
Golf Course Architect William F. Gordon Dies (o) ..... Apr. 64
Golf Course Builders Elect New Officers (ns) ..... Apr. 60
Golf Course Builders Hold Third Annual Meeting (cr) ..... Feb. 78
(Golf Course) Skill, Hard Work Revive Dying Course (fa) ..... Nov. 32
Golf Course In His Majesty's Honor (fa) ..... Mar. 22
Golf Course Irrigation Installation, A Family Affair for 'Formost' (fa) ..... July 30
(Golf Course Maintenance, Allocating Resources For) New Book Stresses Labor (ns) ..... July 43
(Golf Course Management) More Play, Better Management, Baltimore's Sparrows Point (fa) ..... June 14
(Golf Course) My Reasons for Trees (fa) ..... Sept. 10
(Golf Course) Nematode Control: Wise Insurance by John Weseloh (fa) ..... June 29
Golf Course, Rush Hour On The (fa) ..... Apr. 30
(Golf Course) Simplified Nematode Control on Golf Greens (fa) ..... Mar. 24
(Golf Courses) Disease Control Planning is Needed(ns) ..... Mar. 10
Golf Courses, The Herbicide Market by Stan Frederiksen (fa) ..... Feb. FF
Golf Development, What's Happening in, by Harry C. Eckhoff (fa) ..... Jan. 10
Golf Foundation Meets — Energy Crisis on Agenda (ns) ..... Mar. 51
Gordon, William F., Golf Course Architect Dies (o) ..... Apr. 64
(Grass) Fine Fescues Right for Road-Side Uses (ns) ..... Mar. 56
Grass, Floratam, Hits Consumer Market (ns) ..... May 62
(Grass) Glade Kentucky Bluegrass Now Available (ns) ..... Feb. 32
Grass Production Practices Urged to Reduce Pollution (ns) ..... Mar. 72
Grass Seed Prices Up Farmer Interest Down (ns) ..... Apr. 31
Grass Seed Production Continues in Oregon (ns) ..... May 50
Green Industry Crime, Undercover Agents Fight (ns) ..... Feb. 78
Green is for Go (fa) ..... Feb. 65
Greenfield Brand Trademarks Sold to Lebanon Chemical (ns) ..... Apr. 64
(Guardian Tree Experts, Inc.) Beyond The Call of Duty (ns) ..... May 73
(Guardian Tree Experts, Inc.) Pre-Selling Shade Tree Care (fa) ..... Nov. 34
Gypsy Moth Threat to the Midwest (fa) ..... Mar. 16
Gypsy Moths Found in two New Locations (ns) ..... Oct. 24

H

Hammen Brothers Sod Company Named Associate Grower (ns) ..... July 42
Herbicide Antidote Gains Recognition for Stauffer (ns) ..... Nov. 22
Herbicide, Controversial, Defended by Scientist (ns) ..... Aug. 65
(Herbicide) Industrial Roundup Uses Approved by EPA (ns) ..... June 50
(Herbicide Market) Golf Courses by Stan Frederiksen (fa) ..... Feb. FF
Herbicide Study Detect Minute Runoff (ns) ..... Apr. 75
Herbicide Tests, Preliminary, Halt Growth of Cabomba (ns) ..... Apr. 66
(Herbicide) The Case of the Invisible Vapor Barrier by Donald Fox (fa) ..... Aug. 11
(Herbicides) Complex Environment . . . 10 Million Acres of Turf by Gary Johnson (fa) ..... Feb. TT
(Herbicides) Cool Weather Weed Control by Robert W. Schery (fa) ..... Sept. 15
Herbicides for Commercial Sod: How Do They Influence The Crop by John A. Jagschitz and C. R. Skogley (fa) ..... June 22
Herbicides, Maryland Agronomist Details Why They Don't Work (ns) ..... Apr. 70
(Herbicides) More Play, Better Management, Baltimore's Sparrows Point (fa) ..... June 14
(Herbicides) Rush Hour on the Golf Course (fa) ..... Apr. 30
(Herbicides) Spike® by Elanco Recives EPA Clearance (ns) ..... Nov. 24
(Herbicides) The Herbicide Market, Highway Weeds by A. Pete Nicas (fa) ..... Feb. VV
(Herbicides) The Mississippi Method — A Weed Control Program by John L. Snuggs (fa) ..... July 11
Herbicides, 2,4,5-T, EPA Withdraws Formal Hearings on (gn) ..... July 8
(Herbicides) Utility Weed Control by Richard E. Abbott (fa) ..... Feb. JJ
(Highway Weed Control) The Mississippi Method by John L. Snuggs (fa) ..... July 11
Highway Weeds, The Herbicide Market by A. Pete Nicas (fa) ..... Feb. VV
Hyacinth Control Society Convention Report (cr) ..... Sept. 22
Hyacinth Control Society Meets July (cr) ..... June 37
Hydrilla, Dawn Attack on by Doug Jones (fa) ..... June 38



"Bunton lawn-turf equipment is built to take a beatin'... it's tough! Like this self-propelled riding mower. Equipped with a cushiony seat and power steering, it can turn on a dime! It can even go over a pile of rocks and still come out cuttin'!" So listen to Rocky Graziano... send for more information today... with Bunton, you can't lose! Available from 8-inch to 52-inch cut.

BUNTON

BUNTON CO. 4303 Poplar Level Road, Louisville, Kentucky 40213, U.S.A. Phone 502/459-3810 Telex 204-340

For More Details Circle (111) on Reply Card

Issue Page

I

(IPAA) Pesticides Politics and Professionalism (cr) ..... Nov. 20
ISTC Convention Report, Old Friends, New Ideas and Changing Times (cr)oct. 14
ISTC Convention Set for August, 50 Years and on the Grow (fa) ..... July 10
Indian Scientists To Study Insect Pest Pathogens (ns) ..... Oct. 32
Industrial Roundup Uses Approved by EPA (ns) ..... June 50
Industry Spokesmen Discuss Pesticide Law (cr) ..... Mar. 74
Infrared Aerial Photography — Easier Than You Think by W. E. Wildman and J. K. Clark (fa) ..... Oct. 34
(Insect Damage to Trees) Environmental Stress Victimizes Windbreaks (ns) ..... May 60
Insecticide, Bluegrass, Study Progress Report Presented (ns) ..... Mar. 72
Insecticide, Experimental, Controls Japanese Beetle (ns) ..... June 46
(Insecticides) Enviromental Stress Victimizes Windbreaks (ns) ..... May 60
(Insecticides) More Play, Better Management, Baltimore's Sparrows Point (fa) ..... June 14
(Insecticides) What Is BT (Dipel) (ns) ..... Mar. 16
Insects, Weed Control By, Investigated in Idaho (ns) ..... Oct. 26
Instant Shade Trees . . . Texas Style . . . by Albert H. Korenek (fa) ..... Dec. 10
International-Harvester Merges Equipment Lines (ns) ..... Nov. 46
International Pesticide Applicators Plan Annual Convention in Seattle (cr) ..... Aug. 31
(Iron Chlorosis) Are Your Trees Starving to Death by Harold Davidson (fa) ..... June 20
(Irrigation) A Golf Course In His Majesty's Honor (fa) ..... Mar. 22
Irrigation, Automatic, Takes Advantage of Rain (ns) ..... Oct. 48
Irrigation Course, Enrollment Open for (ns) ..... Nov. 22
(Irrigation, Drip) Automatic Watering System — Cutting Chemical Costs (fa) ..... Nov. 38
Irrigation, Drip, Lessens Nitrate Runoff (nf) ..... Mar. 84
(Irrigation) Fertigation: Double Duty For Your Irrigation System by Larry A. Weber (fa) ..... July 22
(Irrigation) Fertigation: Double Duty For Your Irrigation System by Max A. Brown (fa) ..... July 23
Irrigation Industries, Inc., Concord, Calif. Purchased By Automatic Rain Co. (gn) ..... July 8
Irrigation Installation, Golf Course, A Family Affair for Formost (fa) ..... July 30
Irrigation Methods Discussed, Comparison of (ns) ..... Mar. 81
(Irrigation) Portable Bubble Displays Ready For Toro Dealers (ns) ..... Mar. 32

THIS POWER MACHINE AERATES AND PRECISION-DISPENSES THREE TURF MATERIALS SIMULTANEOUSLY.

seed, fertilizer, controls, etc.

If you service lawns, or plan to, we have a complete "automated lawn service" management, training and marketing program available, free with your LAWN MAKER combine. This machine is also excellent for Greens.

Lawn Maker
57 Verdi St., Farmingdale, N.Y. 11735

For More Details Circle (115) on Reply Card

Issue Page

Irrigation Pump and Engine Care by Ray Lariviere (fa) ..... Jan. 22
(Irrigation) San Diego Drip Exhibit Slated for July (ns) ..... June 42
(Irrigation) Sod, Water, And A System by Henry W. Indyk (fa) ..... July 36
Irrigation Specialists Open Office in Westwood (ns) ..... May 51

J

James, Bryson, 1973 F.A.N.N.I.E. Award Presented to (ns) ..... Apr. 72
Japan, Mauget Tree Injection Officials Visit (ns) ..... Feb. 84
Japanese Beetle, Experimental Insecticide Controls (ns) ..... June 46
Japanese Beetle Quarantine Extended In Six States (ns) ..... Apr. 44
Job Performance, Getting Acceptable, From Your Employees by Wallace A. Mitcheltree (fa) ..... May 34
(Jobe's Tree Food Spikes)Young Innovators Introduce Spike Method of Fertilization (fa) ..... May 54
Johnson, Bill, Uses Forklifts Equipped With Torque Converter (ns) ..... Mar. 71
(Johnsongrass Control) The Mississippi Method by John L. Snuggs (fa) ..... July 11
Johnsongrass, New Chemical Promises Control of (ns) ..... Mar. 72

K

(Kenaf) Fiber for Paper Making Discussed in Bulletin (ns) ..... May 62
Kidwell, Jack, Virginia's, Talks Progress and Sod (ns) ..... Feb. 73
(King's Grant) A Golf Course In His Majesty's Honor (fa) ..... Mar. 22

L

Labor Cost Savings In Colorado (ns) ..... Mar. 37
(Land Rehabilitation Program) Reclaiming Course Offered (ns) ..... July 41
Landscape Awards Presented by First Lady (ns) ..... May 57
Landscapers, Retailers Plan Joint Meeting (ns) ..... Dec. 23
Lawn Mower Attachments to Big Genie Available (ns) ..... Mar. 42
Lebanon Chemical Purchases Greenfield Brand Trademarks (ns) ..... Apr. 64
(Lightning Protection) Protection, Service and Profit by John Z. Duling (fa) ..... Sept. 12
Lockwood Corporation Names Wm. R. Michaels President (ns) ..... Nov. 22
Louisville Declares a Park Emergency (fa) ..... Aug. 16
(Lytle, Forest, & Sons) Sales Up for Ohio Custom Applicator (fa) ..... Mar. 18

M

Malathion Plus Oil Spray Removes Citrus Sooty Mold (ns) ..... May 53
Management, Better, More Play, Baltimore's Sparrows Point (fa) ..... June 14
Martin, David P., Named Executive Secretary for Ohio Turfgrass Foundation (ns) ..... June 42
Maryland Agronomist Details Why Herbicides Don't Work (ns) ..... Apr. 70
(Maryland) Officers Are Named by Turfgrass Groups (ns) ..... Mar. 70
Maryland Sod Conference, Major Participants (ns) ..... May 38
Maryland Turfgrass Council Elects Officers (ns) ..... Jan. 68
Mauget, J. J., Now Serves Customers With a Toll-Free Number (gn) ..... May 32
(Mauget, J. J.) Tree Care: Helping Nature With Science by D. I. Dodds (fa) ..... Jan. 14
Mauget Tree Injection Officials Visit Japan (ns) ..... Feb. 84

Issue Page

(Medicaps) Creative Cure for Chlorosis by Warren D. Wolfe (fa) ..... July 44
Mercury, Inorganic, Worker Exposure to (OSHA) (gn) ..... Mar. 14
Miami Removes Palms Suffering From Lethal Yellowing Disease (ns) ..... July 39
Microfiche Catalog System Speeds Parts Indexing (ns) ..... May 60
Midwest Agricultural Chemicals Elects New Officers (ns) ..... Nov. 22
Midwest Regional Turf Conference Report (cr) ..... Apr. 40
Mississippi Method, The, A Weed Control Program by John L. Snuggs (fa) ..... July 11
Mitts and Merrill Elect New President (ns) ..... Aug. 36
Mold, Sooty, Malathion Plus Oil Spray Removes Citrus (ns) ..... May 53
(Monsanto Chemical Company) Industrial Roundup Uses Approved by EPA (ns) ..... June 50
Moon, Dr. Malcolm W., Upjohn Research Chemist Named Senior Scientist (ns) ..... Aug. 31
Moth, Gypsy, Threat to the Midwest (fa) ..... Mar. 16
Moth, Pine Tip, Torrance Recovers From (fa) ..... May 13
(Moth, Tussock) Contingency Use of DDT Granted (fa) ..... Apr. 14
Motivating The Turned-Off Employee (Part 1: The Needs of Man) by John L. McKeever (fa) ..... Dec. 18
Mower, Lawn, Attachment to Big Genie Available (ns) ..... Mar. 42
Musser Golf Tournament Supports Turf Research (ns) ..... Aug. 32
Myers Begins Construction (ns) ..... July 43

N

NAA's Robert Felix Named Exec. Secretary (ns) ..... May 12
(NAA Work Study Program) Service To Industry (fa) ..... Feb 22
NASA's Quarantine Vans to House Plant Pathogens (ns) ..... Sept. 21
National Arbor Day Support Sought by Harry Banker (ns) ..... Mar. 60
National Arborist Associations, New Officers (ns) ..... Apr. 74
Navy's Role in Weed Control by D. R. Estes (fa) ..... Apr. 24
Nematode Control Pays by Dr. R. V. Sturgeon, Jr. (fa) ..... Apr. 18
Nematode Control, Simplified, On Golf Greens (fa) ..... Mar. 24
Nematode Control: Wise Insurance by John Weseloh (fa) ..... June 29
Netting For Sod, Reality From Imagination (fa) ..... Apr. 54
Netting, Plastic — Continuing Research (fa) ..... Aug. 26
(New Haven County Club, Hamden, Conn.) Rush Hour on the Golf Course (fa) ..... Apr. 30
New Jersey Sod Industry Triples in Last Decade (ns) ..... June 51
New Jersey Turfgrass Expo '74 (cr) ..... Nov. 28
New York State Arborists Association, New Officers Elected (ns) ..... Mar. 84
Nitrogen Saving Solution (ns) ..... June 45
Nitrogen, Slow Releasing, Produces Quality Grasses (ns) ..... Nov. 24
Noer, O. J., Grant-In Aid Presented to MSU (ns) ..... May 50
(Noise) OSHA and the Sounds of Progress (ed) ..... May 6
Noise Update, Occupational, The Sweet Sound of Industry (fa) ..... May 47
Northrup King Introduces Aquila/Parade Blend (ns) ..... Dec. 24
Noxious Weed Law — Who Needs It (ed) ..... Feb. 10
Nu-Ag West Becomes New Div. of Foamspray Chemicals (fa) ..... Jan. 26
Nursery Marketer, Mass, Has Place in Industry (ns) ..... Apr. 75
Nurserymen's Association Elects New President (ns) ..... Oct. 26

O

OSHA and the Sounds of Progress (ed) ..... May 6
OSHA and the Tree Man by Robert Felix (fa) ..... June 8
OSHA Boss Cites Public Health Service Statistics from Occupational Diseases (gn) ..... June 11
OSHA Labor Violations Involve Few Standards (ns) ..... July 40
OSHA, New Rules, In State Plans (gn) ..... Nov. 10
OSHA, On-the-spot Citations To be Issued by (ns) ..... July 41
OSHA Plan, Stepped-Up, To Halt Job Hazards (ns) ..... May 66
OSHA Proposes Safety and Health Changes (ns) ..... Apr. 72
OSHA, Public Comment Invited on Criteria Document on Worker Exposure to Inorganic Mercury (gn) ..... Mar. 14
OSHA Regulations Cover Sod Installation and Production (gn) ..... Jan. 8
OSHA Reports on Job Safety and Health Inspections During February 1974 (gn) ..... May 32
OSHA, Training Courses From (ns) ..... Mar. 51
OSHA's Compliance Operations Manual Replaced by Updated Version (gn) ..... July 8
Oak Wilt, Pressure Injection Method Used to Combat (ns) ..... Sept. 77
Occupational Safety and Health Administration Moves Ahead on Regulations (gn) ..... Mar. 14
Ohio Custom Applicator, Sales Up For (fa) ..... Mar. 18
Ohio Sod Producers Hold Annual Meeting (cr) ..... Feb. 76
Ohio Turfgrass Conference & Show (cr) ..... Nov. 28
(Ohio Turfgrass Conference) Green Grows the Business in Ohio (cr) ..... Feb. 18
Ohio Turfgrass Foundation Names David P. Martin Executive Secretary (ns) ..... June 42
(Oil Shortage) Dormant Brush Control With Less Oil (fa) ..... Feb. 16
Oregon, Grass Seed Production Continues In (ns) ..... May 50
Osmun, Dr. John V., Returns to Purdue University (gn) ..... Oct. 8
Oxychem Expansion, Growing Arizona Market Met by (ns) ..... Aug. 32

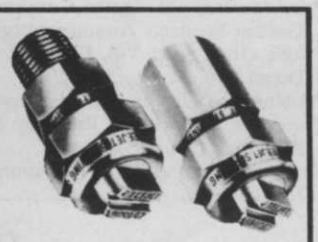
P

P.A.T. Takes to the Field by Wm. Daniel,

SPRAYING SYSTEMS CO.

TeeJet®

SPRAY NOZZLES AND ACCESSORIES



Over 800 INTERCHANGEABLE SPRAY TIP TYPES AND CAPACITIES . . . tapered edge, even and wide angle flat spray . . . hollow and full cone . . . disc type hollow and full cone . . . and flow regulators. The most complete line for spraying herbicides, insecticides, fungicides, liquid fertilizers and foam solutions. All materials. *For complete information write for Catalog 35 . . . and for foam spraying ask for Data Sheets 13602 and 13626.*

SPRAYING SYSTEMS CO.

North Ave. at Schmale Rd., Wheaton, Ill. 60187

Telephone: 312 665-5000 / Telex No. 72-8409

PROMPT SHIPMENT FROM STOCK

For More Details Circle (131) on Reply Card

Issue Page

R. Linton, M. Robey (fa) ..... Nov. 12
Paper, Fiber for Making Discussed in Bulletin (ns) ..... May 62
Permits Issued, U.S. Forest Service (ns) ..... Mar. 51
Pest Management Degree Offered at UC Riverside (ns) ..... Oct. 28
Pest Management Director Gives Nod to Integration (ns) ..... Apr. 64
Pest Services, Outdoor, Offered to Green Industry (ns) ..... Aug. 34
Pesticide Analysis, Research Contract Granted For (ns) ..... Oct. 41
Pesticide Association, DeSalvo Elected President (ns) ..... Oct. 32
Pesticide Law, Federal, U.S. Army Corp of Engineers Granted Emergency Exemption (gn) ..... July 8
Pesticide Law, Industry Spokesmen Discuss (cr) ..... Mar. 74
Pesticide Laws Being Debated (ed) ..... Sept. 6
Pesticide Shortages Studied by Industry (ns) ..... Mar. 86
Pesticides Law, U.S. Army Corps of Engineers Granted Emergency Exemption Under Federal (gn) ..... July 8
Pesticide, Minor Use, Temporary Coordinator For (ns) ..... Oct. 26
Pesticides, Politics and Professionalism (IPAA) (cr) ..... Nov. 20
Pesticides, Proper Use of, Outlined at WSSA (ns) ..... Apr. 60
Pesticides, Standardized Symbols Proposed For (ns) ..... July 39
Pickseed West Expands (ns) ..... July 43
Pine Tip Moth, Torrance Recovers From (fa) ..... May 13
Plants Have Nerves Says Cornell Biologist (ns) ..... Mar. 83
Plastic Netting — Continuing Research (fa) ..... Aug. 26
Poa Annua Control, Scotts, Plus Fertilizer Available (ns) ..... Mar. 46
Poison Treatment Chart Available (ns) ..... Mar. 13
Porter Bros., Outstanding Dealer Award Presented to (ns) ..... Apr. 50
Price Controls, Phase IV, Rules on Sod Production (ns) ..... Apr. 60
Price Increases on Agrico Consumer Lawn and Garden Products Announced (gn) ..... Jan. 8
Prices, Grass Seed, Up, Farmer Interest Down (ns) ..... Apr. 31
Probing The Unseen (Cover Story) (fa) ..... Mar. 10
Protection, Service and Profit by John Z. Duling (fa) ..... Sept. 12
Pump and Engine Care (Irrigation) by Ray Lariviere (fa) ..... Jan. 22

Q

Quarantine, Japanese Beetle Extended In Six States (ns) ..... Apr. 44

R

Railroad Elimination Challenged by Vistron (ns) ..... May 62
Railroad Weeds, Target by Richard W. Fields (fa) ..... Apr. 36
Railroads, Let's Put To Work (ed) ..... Mar. 8
Ramsey Seed Forms New Marketer (ns) ..... July 42
Registration on Fuels and Fuel Additives, EPA has Proposed Regulations to Require (gn) ..... Apr. 8
Respirator Certification Hearings Postponed (gn) ..... July 8
Rhodia Announces Water Hyacinth Clearance (ns) ..... June 45
Rights-Of-Way, New, Need Quick Green Growth (ns) ..... Mar. 70
(Rogala Public Links Golf Course) Hard Work, Skill Revive Dying Course (fa) ..... Nov. 32
Roundup, Industrial, Uses Approved by EPA (ns) ..... June 50
(Russell, Jack,) Simplified Nematode Control on Golf Greens (fa) ..... Mar. 24
Ryan Announces Move (ns) ..... Aug. 31
(Ryan Turf Care Equipment) Microfiche Catalog System Speeds Parts Indexing (ns) ..... May 60

S

SWSS, Graduate Students Win Honors At (ns) ..... Mar. 50
(SWSS) Industry Spokesmen Discuss Pesticide Law (cr) ..... Mar. 74
Safety and Health Changes Proposed by OSHA (ns) ..... Apr. 72
San Diego Drip Exhibit Slated for July (ns) ..... June 42
Saws, Chain, Hot Property, Says Echo Marketing Boss (ns) ..... Mar. 51
(Scott, O.M. & Sons) ProTurf Hosts 90 Europeans (ns) ..... Oct. 30
Scotts Dedicates New Research Center in Ohio (ns) ..... Dec. 23
Scotts Poa Annua Control Plus Fertilizer Available (ns) ..... Mar. 46
Seed Executive Retires (ns) ..... Aug. 36
Seed, Grass, Production Continues in Oregon (ns) ..... May 50
Seed Supplies Seem to be Good (gn) ..... Mar. 14
(Seeds) Turf Contaminants by Dale E. Kern (fa) ..... Mar. 76
Servis Equipment Company Changes Name to Austin (ns) ..... May 64
Shigo, Dr. Alex, Receives Award of Achievement at N.Y. State Arborists Association (ns) ..... June 51
Sierra Chemical Company Opens New Headquarters (gn) ..... Oct. 8
Sod, Commercial, Herbicides For: How Do They Influence the Crop by John A. Jagschitz and C. R. Skogley (fa) ..... June 22
Sod Conference, Winter, Attracts 160 Producers (cr) ..... Apr. 56
Sod Growers and Suppliers Plan Convention for July (ns) ..... June 28
Sod Harvesters, New, Meet Need (ns) ..... Aug. 30
Sod Industry, New Jersey, Triples in Last Decade (ns) ..... June 51
Sod, Netting for, Reality From Imagination (fa) ..... Apr. 54
(Sod) Plastic Netting—Continuing Research(fa) ..... Aug. 26
Sod Producers, Ohio, Hold Annual Meeting (cr) ..... Feb. 76
Sod Producers To Meet At Tucson in February (ns) ..... Dec. 24
Sod Production in the Pacific Northwest by Roy L. Goss (fa) ..... June 32
Sod Production, Phase IV Price Controls Rules on (ns) ..... Apr. 60
(Sod) Profile of an Industry by John R. Hall and George B. Roche (fa) ..... Oct. 36
Sod Service School Held by Century Toro (ns) ..... Mar. 52
Sod, Virginia's Jack Kidwell Talks Progress and (ns) ..... Feb. 73
Sod, Water, and A System by Henry W. Indyk (fa) ..... July 36
(Soil Fumigants, Inc.) Simplified Nematode Control on Golf Greens (fa) ..... Mar. 24
Southern Weed Science Society Report (cr) ..... Mar. 20
Spartan, Toro Fund Study (ns) ..... June 46
Spike® Herbicide by Elanco Recives EPA Clearance (ns) ..... Nov. 24
(Spray Nozzles, Accutrol) Fewer Weeds Better Drift Control by Robt. Eddy (fa) ..... Nov. 41
Spray or Foam? Economics of Growth Regulator Application by Henry Hield (fa) ..... Oct. 12
(Spraying) Dormant Brush Control With Less Oil (fa) ..... Feb. 16
Sprinkler Irrigation Association Elects 1974 Officers (ns) ..... Mar. 85
Sprinkler Irrigation Association Report (cr) ..... Apr. 26
(Sprinkler Irrigation Association) 25th Anniversary Planned (ns) ..... Sept. 22
Sprinkler Irrigation Conference Held in Denver (cr) ..... Feb. 61
(Sprinklers) Portable Bubble Displays Ready For Toro Dealers (ns) ..... Mar. 32
Stanley Hydraulics is New Ackley Name (ns) ..... Feb. 64
Stauffer Chemical, Herbicide Antidote Gains Recognition (ns) ..... Nov. 22
Sulphur Price Rise Announced by Freeport (ns) ..... May 63
Swift Forms Trade Unit (ns) ..... June 45
Sycamore Blight Infection Triggered by Wet Weather (ns) ..... Apr. 64
(Systemic Fungicides) DED Controls: Will Systemics Work? by Richard J. Campana (fa) ..... May 16

T

(Target Chemical Company) Torrance Recovers From Pine Tip Moth (fa) ..... May 13

One quick trip down and back is all it takes. With Myers.

This could be the best thing that ever happened to your turf maintenance program. With a Myers TL32TM golf course sprayer, you can cover the whole width of a fairway in just two passes – covering a full 70 ft. at a time. The sprayer's powerful 32″ fan sends out spray in a ground-hugging pattern 40′ to 50′ on each side. It really does a job with fungicides, keeps your fairways in tip-top playing shape and does it in a lot less time than you'd expect. On top of that, the sprayer can be converted with the P70 attachment for tall shade tree applications to 80 ft.! The TL32 really cuts those big fairway jobs and tall trees down to size. Interested in finding out more? Ask about the TL32TM today at your Myers TurfLine dealer's.

Myers TL32TM
with shade tree attachment

Myers®

The name that works for you.

For More Details Circle (104) on Reply Card

THE F. E. MYERS & BRO. CO.
400 ORANGE STREET • ASHLAND, OHIO 44805
A DIVISION OF McNEIL CORPORATION

Issue Page

Texas Landscape Architects Meet in San Antonio (ns) ..... Mar. 52
(Texas Turfgrass Conference) The Energy Crisis and The Turf Industry (cr) ..... Apr. 16
(Thompson-Hayward Chemical) The Case of the Invisible Vapor Barrier by Donald Fox (fa) ..... Aug. 11
Tiemann, Norbert T., Let's Put the Railroads to Work (ed) ..... Mar. 8
Timber, Western Exports Banned by USDA (ns) ..... May 64
Toro Assembly Plant Announced for Wisconsin (ns) ..... Apr. 31
Toro Breaks Ground for Wisconsin Plant (ns) ..... Nov. 24
Toro Co., Energy Conservation Tips Available from (ns) ..... Apr. 74
Toro Company Reports Record Six Months Sales (ns) ..... Apr. 66
Toro Dealers, Portable Bubble Displays Ready for (ns) ..... Mar. 32
Toro Dealers, Pre-Packaged Parts Display for Non-Service (ns) ..... May 51
Toro Developes Pocket-Size Slide Chart (ns) ..... Mar. 81
Toro Irrigation Division Has New Vice President and General Manager (ns) ..... Mar. 68
Toro, New Utility Vehicle Coming From (ns) ..... Mar. 50
Toro, Sod Service School Held By (ns) ..... Mar. 52
Toro, Spartan Fund Study (ns) ..... June 46
Toro's Irrigation Classes Offered at Five Locations (ns) ..... Oct. 32
Torrance Recovers From Pine Tip Moth (fa) ..... May 13
(Toward A Cleaner Environment) EPA Book on Aquatic Environment (ns) ..... Feb. 32
Training Courses from OSHA (ns) ..... Mar. 51
(Tree Business) OSHA and the Tree Man by Robert Felix (fa) ..... June 8
Tree Care Firms, Extra Cash from Firewood Helps (ns) ..... Mar. 52
Tree Care: Helping Nature with Science by D. I. Dodds (fa) ..... Jan. 14
Trees, Are Your, Starving to Death by Harold Davidson (fa) ..... June 20

HANNAY REELS KEEP HOSE ON THE JOB

You can handle more hose, handle it faster, easier and with greater safety when you install Hannay reels on your spray equipment. Reel handling will keep your hose in service longer, too. Choose your reels from the widest selection of sizes and rewind options for standard or high pressure service. They're all described in Catalog H-6612-ID. Send for your copy.

HANNAY REELS

CLIFFORD B. HANNAY & SON, INC.
WESTERLO, NEW YORK 12193

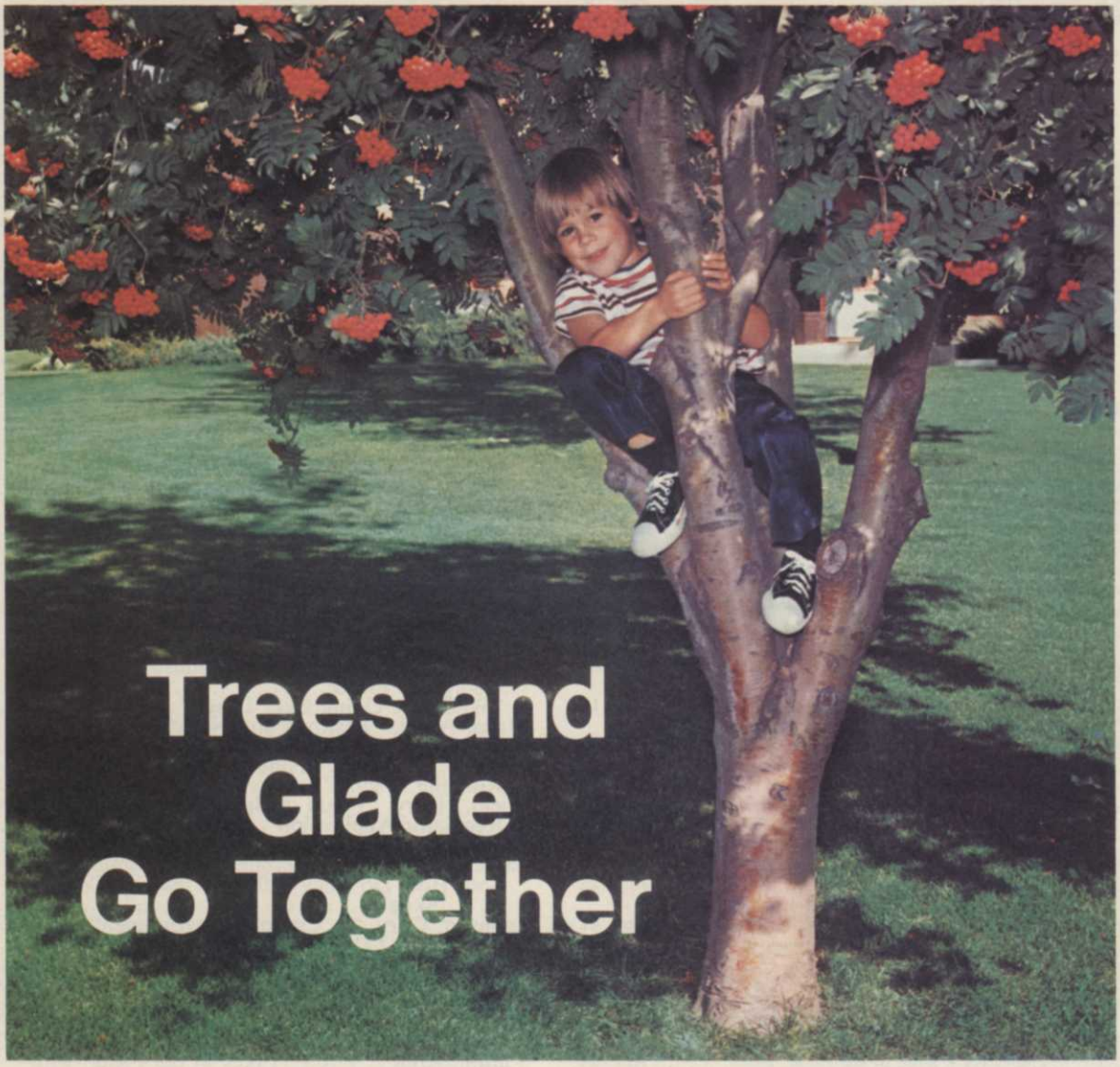
For More Details Circle (113) on Reply Card

Issue Page

(Trees) Beyond the Call of Duty or Some People Will do Anything for Money (ns) ..... May 73
(Trees) Creative Cure for Chlorosis by Warren D. Wolfe (fa) ..... July 44
(Trees) DED Controls: Will Systemics Work? by Richard J. Campana (fa) ..... May 16
(Trees) Environmental Stress Victimizes Windbreaks (ns) ..... May 60
(Trees, Inc.) Louisville Declares A Park Emergency (fa) ..... Aug. 16
(Trees) Instant Shade Trees . . . Texas Style . . . by Albert H Korenek (fa) ..... Dec. 10
(Trees) ISTC Convention Report, Old Friends, New Ideas and Changing Times (cr) ..... Oct. 14
(Trees) Pre-Selling Shade Tree Care (fa) ..... Nov. 34
Trees, My Reasons for (fa) ..... Sept. 10
(Trees) Protection, Service and Profit by John Z. Duling (fa) ..... Sept. 12
Trees, Shade, For Cities, A Community Forestry Program by Dr. John W. Andresen and Philip R. Dolberg (fa) ..... May 26
(Trees) Sycamore Blight Infection Triggered by Wet Weather (ns) ..... Apr. 64
(Trees) Torrance Recovers From Pine Tip Moth (fa) ..... May 13
(Trees) What is the Real Value of a Tree (fa) ..... May 58
(Trees) Young Innovators Introduce Spike Method of Fertilization (fa) ..... May 54
(Turf) A Complex Environment . . . 10 Million Acres of Turf by Gary Johnson (fa) ..... Feb. TT
(Turf) Bent on Better Fairways by Dr. Johnny R. Thomas (fa) ..... Jan 58
Turf Conference Report, Midwest Regional (cr) ..... Apr. 40
Turf Contaminants by Dale E. Kern (fa) ..... Mar. 76
(Turf Disease) Probing the Unseen, The Cover Story (fa) ..... Mar. 10
(Turf Drainage) P.A.T. Takes to the Field by Wm. Daniel, M. Robey, R. Linton (fa) ..... Nov. 12
(Turf) Forward Pass for Bermudagrass by Charles Pyron (fa) ..... Jan. 12
Turf Industry, The Energy Crisis and the (cr) ..... Apr. 16
(Turf) Nematode Control Pays by Dr. R. V. Sturgeon, Jr. (fa) ..... Apr. 18
(Turf) Nematode Control: Wise Insurance by John Weseloh (fa) ..... June 29
Turf Products Training Offered by Toro (ns) ..... Dec. 23
Turf Protection Directory, 1974 (fa) ..... Aug. 37
(Turf) ProTurf Hosts 90 Europeans (ns) ..... Oct. 30
Turf Research, Future of, Toward the Basics (ns) ..... Jan. 56
Turf Scholarship, Southern, Alabama Student Wins (ns) ..... Feb. 86
(Turf) Sod Production in the Pacific Northwest by Roy L. Goss (fa) ..... June 31
(Turf) Sod, Water, and A System by Henry W. Indyk (fa) ..... July 36
(Turf) The Herbicide Market Golf Courses by Stan Frederiksen (fa) ..... Feb. FF
Turfgrass Conferences, Regional, to Feature Education & Equipment (cr) ..... Nov. 28
(Turfgrass) Fylking, Official Grass of Expo '74 (ns) ..... June 42
(Turfgrass) Green is for Go (fa) ..... Feb. 65
Turfgrass Groups, Officers are Named by (ns) ..... Mar. 70
Turfgrass: The People Pleaser, GCSAA Conference and Show (cr) ..... Apr. 20
(Turfgrass) When the Going Gets Tough by John R. Hall (fa) ..... May 48
Turfgrass, Diseases of, by Dr. Houston E. Couch (br) ..... Mar. 13
(Tussock Moth) Contingency Use of DDT Granted (fa) ..... Apr. 14
(Tussock Moth) U.S. Forest Service Plans Go-Ahead for DDT (ns) ..... May 63

U

Underwood, Frank A., Elected President Golf Course Builders of America (ns) ..... Apr. 60
Upjohn Research Chemist Named Senior Scientist (ns) ..... Aug. 31
Urban Rise, Second Home Studied by Task



A new natural team, Glade Kentucky bluegrass and trees! Glade performs well in moderate shade, especially when mixed with fine fescues. A selection from Rutgers University (tested as P-29), Glade is an improved, low-growing, medium to dark green grass with fine leaf texture and thick, rapid-growing rhizome and root system. Glade has good resistance to important turfgrass diseases including powdery mildew.

Like boys and trees, Glade and shade go together. Mixed with other elite bluegrasses and fine fescues in moderate shade, Glade is a natural.

Get new Glade at local wholesale seed distributors.

Glade

KENTUCKY BLUEGRASS

U. S. Plant Patent 3151

Another fine product of Jacklin Seed Company

For More Details Circle (108) on Reply Card

Issue Page
Force (ns) ..... Mar. 66
Urban Space Planning, Room for Recreation by Gerald L. Smith (fa) ..... July 18
Utility Weed Control by Richard E. Abbott (fa) ..... Feb. JJ

V

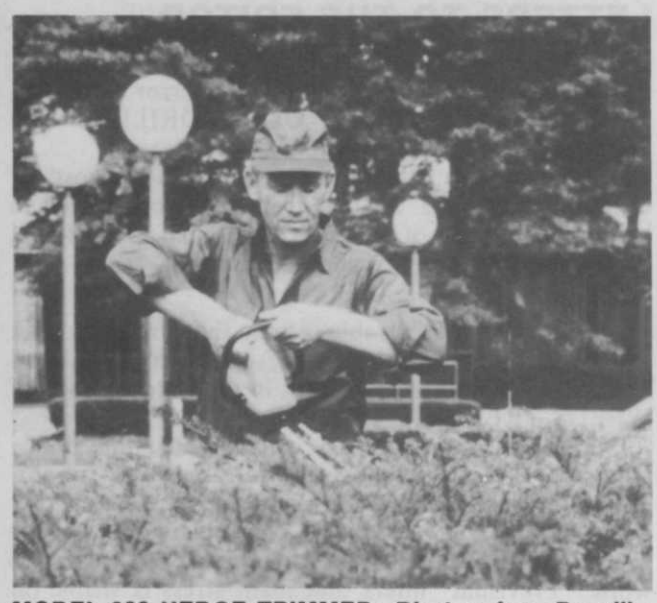
Issue Page
Vehicle, New Utility, Coming from Toro (ns) ..... Mar. 50
Velsicol Chemical Corp. Agricultural Business Group Moves Western District Office (gn) ..... Aug. 8
Velsicol Chemical Corp. Boosts Chlordane Capacity ..... May 62
Vermeer, California Distributorship Established (ns) ..... Apr. 64
(Vexar) Netting for Sod, Reality From Imagination (fa) ..... Apr. 54
Vicon Farm Machinery Moves U.S. Headquarters (ns) ..... Aug. 31
Virginia's Jack Kidwell Talks Progress and Sod (ns) ..... Feb. 73
Vistron, Railroad Elimination Challenged by (ns) ..... May 62

W

WSSA Outlines Proper Use of Pesticides (ns) ..... Apr. 60
Wage-Hour Litigation Draws ASPA Legal Help (ns) ..... Apr. 56
Washington D. C. Meeting To Discuss Energy (ns) ..... Mar. 52
Washington State Department of Agriculture Awarded $50,000 Pesticides Demonstration Grant (gn) ..... July 8
Water Hyacinth Clearance Announced by Rhodia (ns) ..... June 45
Water Hyacinth Nutrient Potential Explored (ns) ..... Mar. 36
Water Hyacinths, Control of With 2,4-D Herbicide (gn) ..... Apr. 8
Water—Its Action in the Root Zone by Donald A. Clemans (fa) ..... Nov. 30
Watering System, Automatic, Cutting Chemical Costs (fa) ..... Nov. 38
Watson Distributing Receives Outstanding Dealer Award (ns) ..... Apr. 64
(Watson, James R.) The Energy Crisis and The Turf Industry (cr) ..... Apr. 16
(Weed Control) Bermudagrass Care Requires Many Inputs (ns) ..... Feb. 70
Weed Control, Biological, Proposed by Scientists (ns) ..... Sept. 22
Weed Control by Insects Investigated in Idaho (ns) ..... Oct. 26
Weed Control, Chemical, Results in Cleaner Air (ns) ..... Apr. 75
Weed Control, Cool Weather by Robert W. Schery (fa) ..... Sept. 15
(Weed Control) Herbicides for Commercial Sod: How Do They Influence the Crop by John A. Jagschitz and C. R. Skogley (fa) ..... June 22
(Weed Control) Fewer Weeds, Better Drift Control by Robert Eddy (fa) ..... Nov. 41
(Weed Control) The Case of the Invisible Vapor Barrier by Donald Fox (f) ..... Aug. 11
(Weed Control) The Herbicide Market, Golf Courses by Stan Frederiksen (fa) ..... Feb. FF
(Weed Control) The Mississippi Method by John L. Snuggs (fa) ..... July 11
Weed Control, The Navy's Role in by D. R. Estes ..... Apr. 24
Weed Control, Utility, The Herbicide Market by Richard E. Abbott (fa) ..... Feb. JJ
Weed Law, Noxious — Who Needs It (ed) ..... Feb. 10
Weed Science, Foy Resumes Position as Associate Editor (ns) ..... June 42
(Weed Science and Technology) Mail Order Weed Science (ns) ..... June 52
Weed Science Society, Southern, Report (cr) ..... Mar. 20
Weeds, Aquatic, AMVAC Chemical Corp. Plans Attack on (ns) ..... Feb. 64
Weeds, Aquatic, The Herbicide Market by Jack Murnighan (fa) ..... Feb. SS
Weeds, Highway, The Herbicide Market, by A. Pete Nicas (fa) ..... Feb. VV
Weeds, Railroad: Target by Richard W. Fields (fa) ..... Apr. 36
(Weeds) Turf Contaminants by Dale E. Kerns (fa) ..... Mar. 76
(Weeds) Water Hyacinth Nutrient Potential Explored (ns) ..... Mar. 36
Wheel-Horse, Outstanding Stock of, Purchased by American Motors Corporation (gn) ..... Jan. 8
Wheel Horse Products Agrees to Purchase Assets of GE Outdoor Power Equipment Operations (gn) ..... Aug. 8
Williams Companies, Tulsa, Okla., Sells Agrico Plant to Lakeshore Equip. & Supply (gn) ..... Feb. 12
Wisconsin Assembly Plant for Toro Announced (ns) ..... Apr. 31
Wisconsin Marine, Inc. Appoints Distributors (ns) ..... Oct. 28
Wright, Dr. Jonathan, W., Receives Distinguished Faculty Award (ns) ..... Apr. 64
(Wright-Patterson Air Force Base Military Golf Course) My Reasons for Trees (fa) ..... Sept. 10

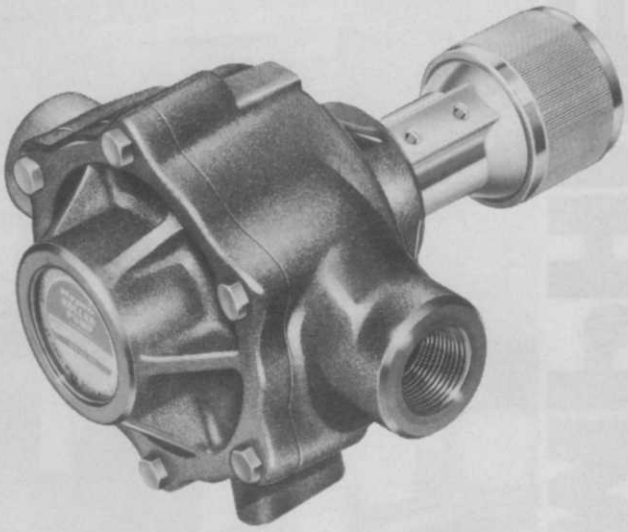
AUTHORS

Abbott, Richard E., "Utility Weed Control" ..... Feb. JJ
Andresen, John W., Dr., "Shade Trees for Cities, A Community Forestry Program" with Philip R. Dolberg ..... May 26
Balfour, Robert L., "Golf Car Batteries, New Ratings Match Power To Use" ..... Jan. CC
Brown, Denver, "Golf Cars Private vs. Club Ownership" ..... Jan. DD
Brown, Max A., "Fertigation: Double Duty For Your Irrigation System" ..... July 23
Campana, Richard J., "DED Controls: Will Systemics Work" ..... May 16
Clark, J. K., "Infrared Aerial Photography — Easier Than You Think" with W. E. Wildman ..... Oct. 34
Clemans, Donald A., "Water — Its Action in the Root Zone" ..... Nov. 30
Curtin, John J., Jr., "Bonds and Bonding" ..... June 16
Daniel, Wm., "P.A.T. Takes to the Field" with R. Linton, M. Robey ..... Nov. 12
Dodds, D. I., "Tree Care: Helping Nature With Science" ..... Jan. 14
Dolberg, Philip R., "Shade Trees for Cities, A Community Forestry Program" with Dr. John W. Andresen ..... May 26
Duling, John Z., "Protection, Service and Profit" ..... Sept. 12
Eckhoff, Harry C., "What's Happening in Golf Development" ..... Jan. 10
Eddy, Robert, "Fewer Weeds, Better Drift Control" ..... Nov. 41
Estes, D. R., "The Navy's Role in Weed Control" ..... Apr. 24
Felix, Robert, "OSHA and the Tree Man" ..... June 8
Fields, Richard W., "Target: Railroad Weeds" ..... Apr. 36
Fox, Donald, "The Case of the Invisible Vapor Barrier" ..... Aug. 11
Frederiksen, Stan, "The Herbicide Market, Golf Courses" ..... Feb. FF
Goss, Roy L., "Sod Production in the Pacific Northwest" ..... June 31
Hall, John R., "Profile of an Industry" with George B. Roche ..... Oct. 36
"When the Going Gets Tough" ..... May 48
Halla, Arvid, "Positives and Negatives of Battery Care" ..... Jan. NN
Hedglin, Daniel L., "Nine Points For Smooth Running Engines" ..... Jan. FF
Hield, Henry, "Foam or Spray? Economics of Growth Regulator Application" ..... Oct. 12
Indyk, Henry W., "Sod, Water, and A System" ..... July 36
Jagschitz, John A., "Herbicides for Commercial Sod: How Do They Influence the Crop" with C. R. Skogley ..... June 22
Johnson, Gary, "A Complex Environment" ..... Feb. TT
Jones, Doug, "Dawn Attack . . . On Hydrilla" ..... June 38
Kern. Dale E., "Turf Contaminants" ..... Mar. 76
Korenek, Albert H. "Instant Shade Trees . . . Texas Style . . ." ..... Dec. 10
Lariviere, Ray, "Irrigation Pump and Engine Care" Jan. 22
Lawson, Dr. Eric, "Essentials of Borrowing" ..... June 48
Linton, Robt., "P.A.T. Takes to the Field" with Wm. Daniel & M. Robey ..... Nov. 12
Loar, Stanley, "The Aborist's Insurance Market" ..... Dec. 14
Locke, Richard D., "Old Technique . . . New Look" Aug. 22
McKeever, John L., "Motivating The Turned-Off Employee" ..... Dec. 18
Mitcheltree, Wallace A., "Getting Acceptable Job Performance From Your Employees ..... May 34
Murnighan, Jack, "Aquatic Weeds, The Herbicide Market" ..... Feb. SS
Nicas, A. Pete, "Highway Weeds" ..... Feb. VV
Poole, Charles W., "Golf Car Trouble-Shooting" ..... Jan. HH
Pyron, Charles, "Forward Pass for Bermudagrass" ..... Jan. 12
Robey, Melvin, "P.A.T. Takes to the Field" with Wm. Daniel and Robt. Linton ..... Nov. 12
Roche, George B., "Profile of an Industry" with John R. Hall ..... Oct. 36
Schery, Robert W., "Cool Weather Weed Control" Sept. 15
Skogley, C. R., "Herbicides for Commercial Sod: How Do They Influence The Crop" with John A. Jagschitz ..... June 22
Smith, Gerald L., "Urban Space Planning, Room for Recreation" ..... July 18
Snuggs, John L., "The Mississippi Methd" ..... July 11
Sturgeon, Dr. R. V., Jr., "Nematode Controls Pays" Apr. 18
Thomas, Dr. Johnny R., "Bent on Better Fairways" Jan. 58
Weber, Larry A., "Fertigation: Double Duty for Your Irrigation System" ..... July 22
Webster, Arnold, "Arborist in the Witness Chair" ..... Oct. 16
Wender, Chet, "$20 Thousand In Savings Through Labor Management" ..... Feb. 14
Weseloh, John, "Nematode Control: Wise Insurance" June 29
Wildman, William, "Infrared Aerial Photography — Easier Than You Think" with J. K. Clark ..... Oct. 34
Wolfe, Warren D., "Creative Cure for Chlorosis" ..... July 44



MODEL 800 HEDGE TRIMMER: Disston, Inc., Danville, Va.

This cordless electric hedge trimmer comes complete with removable, rechargeable nickel-cadmium battery pack. Overnight charge provides one hour of cutting time. Hard, double-edged, bevel-honed steel blades, with special non-stick coating for clean cutting and resistance to corrosion, deliver 2,000 strokes per minute. 18¼ inch blade is said to increase precision, high-impact plastic housing minimizes fatigue, and conveniently-placed on/off switch maximizes safety. Model 800 will be available in early 1975, priced just under $60. For more details, circle (701) on the reply card.



SERIES 1700 PUMP: Hypro Division, Lear Siegler, Inc., St. Paul, Minn.

New roller sprayer pump delivers up to 26 gallons per minute at pressures up to 200 PSI. It has a 15/16 inch diameter stainless steel shaft and is equipped with an adaptor for direct mounting on 540 RPM tractor PTO shafts. Pressure-tested pump housing is available in cast iron or Ni-Resist for corrosion and abrasion resistance. Leather or Viton shaft seals are available optionally in place of standard Buna-N seals. Standard rollers are teflon for most applications; nylon and rubber rollers can be substituted to fit the job. For more details, circle (702) on the reply card.

PVC CHECK VALVE: Flo-Control, Inc., Burbank, Calif.

Flo-Control announces its new line of PVC In-Line Check Valves. These valves, available in sizes ½ inch through 2 inches, are said to be economical, versatile, dependable and corrosion-free. Valve can be used for slope irrigation, swimming pools, pumps, water meters and other applications. The valve has a Scheduled 80 wall stainless steel spring with a guaranteed life of 2,000,000 cycles and a Buna "N" seal which insures suitability for use with chlorinated water, gasoline and oil. For more details, circle (703) on the reply card.

FRATE LIFT: Brouwer Turf Equipment Limited, Keswick, Ontario

Frate Lift loader/unloader is a lightweight compact unit (approx. 2,800 lbs.) capable of operating on construction sites as will as paved areas. Mast is designed to lift unit off ground for loading into specially-designed holders mounted on rear of truck without taking up cargo space. Equipped with three hydraulically-driven wheels with instant forward, reverse and sideshift, the unit is capable of lifting up to 4,000 pounds. It has a short turning radius and the front wheels can be extended individually or together to counterbalance its load. For more details, circle (704) on the reply card.

COMPARE

Vermeer T-300A: toughest track-mounted service line trencher in the field today!

Compare design, compare construction, compare machine weight. That's right. Compare the Vermeer T-300A with any other service line trencher in the field today . . . you'll see the difference. **You'll see it first in construction** with an extra heavy-duty, welded channel/pipe frame, a rugged 30 hp engine, the strongest digging chain in its class. **You'll see it in design** — with a fully enclosed drive system, independent hydraulic track drive and the extra attachments that keep it on the job daily. **But, best of all, you'll discover the difference in machine weight** — a Vermeer feature that exposes the real shortcomings in lighter, less expensive models . . . a Vermeer feature that ensures a stronger machine in the frame, the boom, the crawler track drive system, and most important, in your service line work . . . day after day, year after year.

. . . also compare Vermeer's complete line of rubber-tired trenchers.

558 6/03 82
29164

Our 25th Year

VERMEER

THE DIGGIN' DUTCHMAN

VERMEER TRENCHER-PLOW DIVISION
7212 NEW SHARON RD. • PELLA, IOWA 50219

For More Details Circle (103) on Reply Card

LETTERS TO THE EDITOR

Dear Sir:

I would like to draw attention to an error in the article DAWN ATTACK . . . ON HYDRILLA which appeared in your June issue.

Reference was made to treatment rates and cost per treatment in terms of acre feet. All such references should be in terms of SURFACE ACRES. **Doug Jones, Advertising Manager, Applied Biochemists, Inc.**

Dear Sir:

It was with considerable dismay that I recently read "Infrared Aerial Photography — Easier Than you Think!" by Wildman and Clark in the October issue of WEEDS TREE and TURF.

. . . it has managed to convey in unmistakable language the ideas that color infrared film (photography) is heat-sensitve and that "previsual detection" was achieved. Neither is true. Color infrared film (either 2236 or 2443) is not heat-sensitive in any sense of the word. "Previsual" infers that plant stress is visible on the CIR photography before is is visible to the human eye. I know no one, including ourselves, who has done a great deal of work with applications of CIR to the plant sciences (forestry, agriculture, etc.) who have ever achieved true "previsual" detection. What is sometimes confused as "previsual", but technically is not, is when the stressed part (e.g., the top of a tree) is not visible on the ground, but can be seen from the air. But even in these cases, it will often be visible to the airborne human observer and on color film as well as CIR. **Merle P. Meyer, Director, Institute of Agriculture, Remote Sensing Laboratory, University of Minnesota, College of Forestry, St. Paul, Minnesota.**

Dear Sir:

Your editorial in the September, 1974 issue of WEEDS TREES AND TURF concerning our rather low priority on the lists of chemical manufacturers, law-making bodies, etc., brings to the forefront the necessity of all our diversified industries working together. If this could be done successfully, I am sure our "minor" position would be uplifted to one of major influence.

For example, The Long Island Pest Control Association and the Long Island Arborists Association, both of which we are a member, have recently sent out questionnaires to their members requesting the type and amounts of various pesticides being used which would then be forwarded to the appropriate chemical companies. This is a good start. However, if these two associations combined their data and forwarded it to the above companies, theoretically our influence with them would double. Now, take this effect and combine it with the sod growers, park superintendents, nurserymen, and other segments of the industry and we begin to really make ourselves felt.

A good first step in getting these associations to work together could be to develop a liaison between these groups using individual members. These liaisons, should : 1. be active in a local, state, or national association, 2. have some working knowledge of the association he is to liaison with.

Many associations are now actively working to educate the public, lobby for favorable legislation, and influence suppliers. Since many of the individual association problems are all our problems, it's time to get together. **W. William Abrams, Prudent Controls Corp., Copiague, New York.**

classifieds

When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: All classifications 50¢ per word. Box number, $1. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment.

FOR SALE

DOUBLE EDGE sod cutter blades. Will fit any Ryan sod cutter. Works like double edge razor blade. Cuts much more sod per blade. Made to bolt on both ways. $24.00 plus postage. New automatic sod loaders for direct loading to pallets, trucks or trailers. No workers needed on ground. Both products developed and designed by Hadfield. Write or call Glen Hadfield, 4643 Sherwood, Oxford, Michigan 48051. Phone 313 628-2000.

ARPS stump cutter teeth, top quality and best price in U.S.A., D. J. Andrews, Inc., 17 Silver St., Rochester, New York 14611. Call 716 235-1230.

WOOD SPLITTER attachment for your backhoe converts your backhoe to a splitter in less than 10 min. Build it yourself with our blueprints. Send $27.50. Lupton Tree Service, 32 Martha St., Tiffin, Ohio 44883.

USED EQUIPMENT

FOR SALE: Sprayers: used and new; hydraulic and mist, all makes; Royal 20, 35, and 55 pumps. Used rotomist parts, big discount! Phone 313 665-5338 or 313 994-3110. Write: Ralph McFarland, 209 Pleasant Place, Ann Arbor, Michigan 48103.

SOD HARVESTER, mounted on John Deere 20-20 diesel. Iowa boom mounted on trailer with International semi tractor. Pallets. Rodgers sweeper with motor. 2 Ryan 18 inch sod cutters. 2 army half-tracks. Brillion seeder 10 ft. Ford fork lift tractor with duals. Eckert's Turf Nursery, 4633 Curtice Rd., Mason, Michigan 48854. Phone 517 676-2173.

FOR SALE — 11 gang Jacobsen mowers, 9 gang Roseman mowers, irrigation cable sprinkler with 4 inch rubber hose, 1200 feet 8 inch high pressure irrigation pipe. Wanted used Brouwer sod harvester, Anderson Rock picker. Schneider Sod Farm, R9, Quincy, Illinois 62301. Phone 217 224-1893.

JACOBSEN SEEDER Model 524-100 self-propelled unit. In excellent condition, used only 10 hours. $1000.00. Write or call: Jim Walter, 624 Fairmont St., Latrobe, Pa. 15650. Phone 412 537-8778.

HYDRO-MULCHER: 1972 Bowie Victor 500, rotary gear pump, flotation tires, $4,-000.00. World of Green, Inc., 323 Crowley Rd., Arlington, Texas 76013. Phone 817 265-0346.

BRUSH CHIPPERS, aerial booms, hydro-Ax's, cable plows and trenchers. We buy and sell. Wright Tree Service, Equipment Division, Des Moines, Iowa. Phone 515 277-6467.

VERMEER Model 630 Stumper with only 10 hours use, excellent condition, $3,200. Expert Tree Kare, phone 305 847-4264 Kissimmee, Florida.

FOR SALE: Vermeer M-12 power backfiller, used one season, excellent condition. Make offer. White Turf Engineering, Winchendon, Mass. 01475. Phone 617 297-0940/0941.

STUMP grinders, log splitters, chippers, sprayers, bucket trucks, all reconditioned; let us know your needs. Essco, 5620 Old Sunrise Highway, Massapequa, New York 11758. Phone 516 799-7619.

FOR SALE: 5 18" Ryan sod cutters with sulky rollers, excellent condition. Foxcroft Sod Farms, Glen Ellyn, Illinois. Phone 312 469-4638.

FOR SALE stump cutter. Vermeer model 1560, good condition $2000.00. Phone 517 484-5780.

SEEDS

SOD QUALITY Merion Seed for discriminating growers. Fylking, Delta, Park, Newport, Nugget, Adelphi, Cheri, Glade and Baron bluegrasses as well as fine fescues. Also Manhattan fine leaved rye grass. We will custom mix to your specifications. Michigan State Seed Co., Div. of Vaughan-Jacklin Corp., Grand Ledge, Michigan 48837. Phone No. 517 627-2164.

HELP WANTED

TREE CARE SALES REPRESENTATIVES: The Davey Tree Expert Company has openings for Sales Representative in the southeast and mid-Atlantic Coast area. Must have Jr. College or four year degree and/or four to six years of sales experience in tree care or allied fields such as nursery, landscaping, forestry and retail garden stores. Will train the sales-oriented person who will be on salary. Later salary plus bonus arrangement with unlimited earnings for those who can sell our quality service. Write letter of application with resume to R. J. McCafferty, The Davey Tree Expert Co., 117 S. Walter, Kent, Ohio 44240. An equal opportunity employer.

DISTRIBUTORS for D. J. Andrews, Inc. stump cutter teeth, pockets and bolts. Best wholesale and retail price in U.S.A. Add to this exclusive area, local advertising at our expense, etc., and you have our story. D. J. Andrews, Inc., 17 Silver St., Rochester, N.Y. 14611. Call 716 235-1230, or 716 436-1515.

INDUSTRIAL WEED CONTROL — Immediate opening for an industrial weed control sales-service representative. Duties: sell weed control contracts during the winter months; service the same accounts during the balance of the year. A knowledge of soils, weed species and herbicides would be desirable. Salary based upon experience. Excellent fringe benefits. Send resume to: Dave Bassler, Western Soil Management, 1048 Route No. 22, Mountainside, New Jersey 07092.

SUPERINTENDENT, full, time management of nine woodland properties in Medfield, Dover, Sherborn, Needham and Natick, Massachusetts area totaling 1,215 acres. Knowledge of forest and park management, maintenance of vehicles and equipment and care of natural ice for skating. Ability to meet visiting public, direct staff and to prepare budget, manage receipts and disbursements. Health insurance, pension plan, attractive house, utilities, salary open. Reply Box 126, Weeds, Trees and Turf, 9800 Detroit Avenue, Cleveland, Ohio 44102.

GROUNDSMAN-GARDENER: Large midwest zoological park needs competent groundsman to maintain and improve lawns, native trees and shrubs, floral areas, and tropical indoor plantings. Experience and pertinent education in horticulture, aboriculture, or landscaping preferred. Graded salary scale, beginning at $8900 or $9900. Liberal benefits. Reply to P.O. Box No. 342, Brookfield, Illinois 60513.

advertisers

Abbott Labs.....16-17
Adelphi Kentucky Bluegrass..34
Asplundh Tree Expert Co., Chipper Div. 6
Bartlett Mfg. 29
The Bunton Company.....39
Charles Machine Works, Inc. 15
E. I. DuPont de Nemours & Company, Inc. 5
G & H Products 33
Gordon Corp., P.B.I. 26
Clifford Hannay and Sons 44
Hercules, Inc. 3
Hypro, Inc. 25
Instant Shade Tree 33
Jacklin Seed Co. 9, 30, 45
Lawn Makers, Inc. 40
Lofts Pedigreed Seed Co. .....4th Cover
Manhattan Ryegrass Growers Assn. 7
National Mower Co.....11
F. E. Myers & Bros. Co.....43
Northrup King Co. (Aquild Parade) 12-13
Princeton Turf Equipment.....25
Rain Bird Sprinkler Co.3rd cover
Ryan Lawn Equipment.....20-21
Spraying Systems Co.....41
Tee-2-Green Corp.....2nd cover
Thompson-Hayward Corp.....35
Vermeer Mfg. Co. 48
Warren's Turf Nursery 50
Willamette Seed & Grain Co. 27

JANUARY WTT

TURFGRASS CARE & IRRIGATION

MISCELLANEOUS

TREE APPRAISALS, Surveys, loss evaluations and expert consultation services. For names of members of the American Society of Consulting Arborists, Inc., throughout the country, contact: Executive Director ASCA, 12 Lakeview Ave., Milltown, New Jersey 08850.

POSITION WANTED

SEEKING OPPORTUNITY. Western states Consider employment, partnership, term purchase. 31 years old, B.S. Forestry. Experience urban, state, federal, private. Present and past six years manager large scale Agri-Business. Write to Box 127, Weeds, Trees & Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

REAL ESTATE

FOR SALE: established turf farm 20 miles from Boston, Mass. Phone 617 668-2827.

Mr. Sod Grower!

**Business off?
Sales down?
Building slump
causing you to
slump too?**

**HERE IS
SOMETHING TO
CONSIDER! ! !**

There are hundreds of thousands of old homes in communities with sparse thin lawns because of shade too dense for most grasses. There are also hundreds of thousands of old Merion, Windsor and other type lawns that have become so badly infested with smut and other grass diseases they are hopeless, or at least difficult to cure or control. Most of these old lawns are in well established communities where people want the best and have the means to purchase the best.

Why not go after this lucrative market which is not affected by a building slump, high interest rates or inflation? You can do so by becoming a franchised grower of Warren's A-20 and A-34 Kentucky Bluegrasses and other Warren grasses to be released as patents are issued.

Warren's ® A-20
is rated high for over all performance and disease resistance by research organizations doing turfgrass research.

Warren's ® A-34
is rated highest for shade tolerance by the same research people.

When you become a Warren Franchise or Associate Grower, you place yourself ahead of competition with better products, not available to your competition. Here is something else to consider ... in 1974, when our competitors were reporting sales off as much as 50%, Warren's Turf Nursery's sales were running ahead of 1973. The reason ... golf courses and athletic institutions all over the northern half of the U. S. A. were installing A-20 on tees, and athletic fields. Architects were writing specs for Warren grasses and owners of old homes were ripping out old lawns and installing A-20 or A-34. All because these people wanted the finest lawn areas available. You too can enjoy this business when you become a Warren Associate Grower.

Warren proprietary grasses are now produced in 15 states and in England, Scotland and France. There are a few territories still available.

Write today for particulars about a Warren Franchise. Should there be no Warren Nursery or Associate Grower in your area we will be pleased to consider you for an exclusive Warren Franchise.

**WARREN'S
TURF NURSERY, INC.**
8400 West 111th Street
Palos Park, Ill. 60464

For More Details Circle (122) on Reply Card

trimmings

Bogus OSHA inspectors beware! The U. S. Department of Labor alerted employers to persons posing as OSHA inspectors. OSHA boss, John H. Stender, described several con games used by the phony inspectors. "Some will demand on-the-spot payment of penalties for conditions they claim violate OSHA rules," he said. "Others will point out so-called violations and suggest they can be corrected by a particular tool, machine or piece of equipment. These usually are followed a day or so later by an accomplice who offers to sell the employer the recommended items." OSHA inspectors carry special Labor Department credentials and if employers doubt the authenticity of an inspector, the identification number and inspector's name can quickly be verified by telephoning his home office.

University of Maryland scientists were granted a $5,000 cooperative agreement with the U. S. Department of Agriculture to compile and analyze pesticide data. The purpose is to compile information on pesticide efficacy and toxicology so it can be stored and readily retrieved. Dr. Robert Menzer, professor of entomology at the university, is the project leader and William N. Sullivan, Jr., research entomologist, is the Agricultural Research Service representative.

In other USDA grants, Dr. P. K. Biswas, professor of plant and soil science, Tuskegee Institute, Alabama, is the leader of a project continuing investigations on the dormancy and germination behavior of seeds of selected weed species. The grant totals $6,100.

Government Printing Office has made available three publications containing all federal job safety and health standards. Titles of the standards include: "Construction Safety and Health Regulations, Maritime Employment Safety and Health Regulations and General Industry Safety and Health Regulations." For more information contact Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

BEARD COLLECTION

A new 16mm color film produced by the Extension Service at Ohio State University entitled, "Pesticides and You," presents the story of pesticides in an unbiased, unemotional way. The movie is designed to eliminate confusion and misunderstanding regarding pesticides and the environment. Available on loan for $1.00 service charge from: Extension Film-TV Library, 2120 Fyffe Rd., Columbus, Ohio 43210.

Nearing the endangered species status is the American Elm. Colorado State Forest Service personnel recently sampled 1,309 elms and discovered 866 (66%) infected with Dutch Elm disease. Efficient sanitation measures and the use of insecticides seem the prudent course to buy additional time in hopes that a cure can be developed.

USDA has exempted transplants, if free of soil, from the list of fire ant and Japanese beetle regulations. Bare-root plants will not contribute to insect spread if substantially free of soil. Both ants and beetles lay eggs in soil and spend at least part of their life-cycle underground. Articles still regulated under the imported ant and beetle quarantines include: soil, sod, used mechanized soil moving equipment and plants with roots. Such regulated items must be inspected and certified "pest-free" before being shipped from infested to uninfested areas.

Greatest single challenge facing OSHA is developing health standards to protect workers from on-the-job hazards, said John Stender, head of the administration. OSHA will expand standards covering some 400 health standards within the next three years. Up to seven new health standards may be published by the end of the year.

Those nomad gluttons, the Gypsy Moths, munched their way through 750,000 acres of northeastern woodland this summer. They defoliated 1.7 million acres in 1973. The USDA attributes the decrease to a unique combination of weather conditions, insect virus, parasite control and extensive state, federal and private control programs.

For More Details On Back Cover Circle (114) On Reply Card

Look at it this way

Before selecting an automatic irrigation system, consider the viewpoint of a blade of grass. It wants to see enough water coming its way often enough to keep it healthy. How much and how often depends on such variables as growing conditions, sun and shade, height, temperature, and course contour. That's why the happiest sight a blade of grass can see is a member of Rain Bird's exclusive Golf Team (six full time golf irrigation experts) consulting with a Rain Bird installer and the superintendent—right on the course. It means the best irrigation plan, tailored to your course, carried out with the most reliable equipment. Ask anyone with a Rain Bird system. Ask any blade of grass.

RAIN BIRD®

Glendora, California 91740

For more information circle number 177 on card

ANNOUNCING:

A Revolutionary New Perennial Ryegrass That Won't Surrender Under Any Conditions

Yorktown*

Turf-Type Perennial Ryegrass

Lofts Pedigreed Seed, Inc. is proud to announce a new variety of perennial ryegrass that truly lives up to its name. . .Yorktown. When tested against 15 other new and established varieties Yorktown received the highest rating for overall turf quality. And Yorktown features vastly improved mowing qualities.

That's why we say – Yorktown won't surrender under any conditions. Although the new Yorktown turf type perennial ryegrass is not yet available in large enough quantities to meet everyone's needs, you'll be glad you waited for your 1975 supply. This time *"America Surrenders to Yorktown!"*

LOFTS

Lofts Pedigreed Seed, Inc.
Bound Brook, N.J. 08805 / (201) 356-8700

Lofts/New England
20 Beck Road
Arlington, Mass. 02174
Call collect (617) 648-7550

Chanderlin Seed Co.
Div. of Lofts Pedigreed Seed, Inc.
Bound Brook, N. J. 08805
Call collect (201) 356-8702

Great Western Seed Co.
P.O. Box 387
Albany, Oregon 97321
Call collect (503) 926-2636

Loft Kellogg Seed Co.
322 E. Florida St.
Milwaukee, Wis. 53201
Call collect (414) 276-0373

Also available from Lofts: Baron Kentucky Bluegrass *(U.S. Dwarf Variety Plant Patent No. 3186)* • Manhattan Perennial Ryegrass • Jamestown Chewings Fescue Kingstown Velvet Bentgrass • Exeter Colonial Bentgrass • Majestic Kentucky Bluegrass (P-84) **To be marketed soon:** Ram 1 Kentucky Bluegrass • Georgetown Kentucky Bluegrass **In addition, all of the following well-known varieties of certified turf seeds are available from Lofts:** Fylking Kentucky Bluegrass • Pennfine Perennial Ryegrass • Merion Kentucky Bluegrass • Nugget Kentucky Bluegrass Penncross Bentgrass • Pennstar Kentucky Bluegrass • Highlight Chewings Fescue • Koket Chewings Fescue • Sydsport Kentucky Bluegrass

**Protection applied for under the U.S. Plant Variety Protection Act*